SAR EVALUATION REPORT

For

Accvent LLC

3505 N.W.107th Ave,Doral,Florida.USA

FCC ID: JJMEQO

Report Type:	Product Type:
Original Report	Mobile Phone

Test Engineer:	Wilson Chen (Wilson Chen)
Report Number:	R1SH140530006-20
Report Date:	2014-06-19
Reviewed By:	Bell Hu (Bell Hu) SAR Engineer
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Attestation of Test Results			
EUT Information	**Company Name**	Accvent LLC	
	EUT Description	Mobile Phone	
	FCC ID	JJMEQO	
	Model Number	T36	
	Test Date	2014-06-15 to 2014-06-16	
Frequency	**Max. SAR Level(s) Reported**		**Limit(W/Kg)**
GSM 850	0.524 W/kg 1g Head SAR 0.951 W/kg 1g Body SAR		1. 6
PCS 1900	0.909 W/kg 1g Head SAR 1.349 W/kg 1g Body SAR		
WCDMA850	0.165 W/kg 1g Head SAR 0.284 W/kg 1g Body SAR		
WCDMA1900	0.655 W/kg 1g Head SAR 0.452 W/kg 1g Body SAR		
Simultaneous	1.266 W/kg 1g Head SAR 1.534 W/kg 1g Body SAR		
Applicable Standards	**ANSI / IEEE C95.1 : 2005** IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fileds,3 kHz to 300 GHz.		
	ANSI / IEEE C95.3 : 2002 IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to SuchFields,100 kHz—300 GHz.		
	IEEE1528:2003 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques		
	KDB procedures KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies. KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets KDB 865664 D01 SAR Measurement Requirements for 100 MHz to 6 GHz KDB 941225 D01 SAR Measurement Procedures for 3G Devices-CDMA 2000/EV-Do WCDMA/HSDPA/HSUPA KDB 941225 D06 SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities.		

Note: This wireless device has been shown to be capable of compliance for localized specific absorption rate (SAR) for General Population/Uncontrolled Exposure limits specified in ANSI/IEEE Standards and has been tested in accordance with the measurement procedures specified in IEEE 1528-2003 and RF exposure KDB procedures.

The results and statements contained in this report pertain only to the device(s) evaluated.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1SH140530006-20	Original Report	2014-06-19

EUT DESCRIPTION

This report has been prepared on behalf of Accvent LLC and their product, FCC ID: JJMEQO , Model: T36 or the EUT (Equipment under Test) as referred to in the rest of this report. The EUT is a mobile phone.

Technical Specification

Product Type	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	Internal Antenna
Body-Worn Accessories:	Headset
Face-Head Accessories:	None
Multi-slot Class:	Class12
Operation Mode :	GSM Voice, GPRS /EGPRS Data, WCDMA, WiFi and Bluetooth
Frequency Band:	GSM 850 : 824-849 MHz(TX) ; 869-894 MHz(RX) PCS 1900: 1850-1910 MHz(TX) ; 1930-1990 MHz(RX) WCDMA850: 824-849 MHz(TX) ; 869-894 MHz(RX) WCDMA1900: 1850-1910 MHz(TX) ; 1930-1990 MHz(RX) WiFi: 2412MHz-2462MHz Bluetooth : 2402MHz-2480MHz
Conducted RF Power:	GSM 850 : 32.91 dBm PCS 1900: 30.02 dBm WCDMA 850: 22.66 dBm WCDMA 1900: 22.09 dBm WiFi: 9.49 dBm Bluetooth: 6.86 dBm
Dimensions (L*W*H):	122 mm (L) × 65 mm (W) × 10.5 mm (H)
Power Source:	3.7 V_{DC} Rechargeable Battery
Normal Operation:	Head and Body-worn

REFERENCE, STANDARDS, AND GUILDELINES

FCC:

The Report and Order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 mW/g as recommended by the ANSI/IEEE standard C95.1-1992 [6] for an uncontrolled environment (Paragraph 65). According to the Supplement C of OET Bulletin 65 “Evaluating Compliance with FCC Guide-lines for Human Exposure to Radio frequency Electromagnetic Fields", released on Jun 29, 2001 by the FCC, the device should be evaluated at maximum output power (radiated from the antenna) under “worst-case” conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in North America is 1.6 mW/g average over 1 gram of tissue mass.

CE:

The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 2 mW/g as recommended by EN62209-1 for an uncontrolled environment. According to the Standard, the device should be evaluated at maximum output power (radiated from the antenna) under “worst-case” conditions for normal or intended use, incorporating normal antenna operating positions, device peak performance frequencies and positions for maximum RF energy coupling.

This report describes the methodology and results of experiments performed on wireless data terminal. The objective was to determine if there is RF radiation and if radiation is found, what is the extent of radiation with respect to safety limits. SAR (Specific Absorption Rate) is the measure of RF exposure determined by the amount of RF energy absorbed by human body (or its parts) – to determine how the RF energy couples to the body or head which is a primary health concern for body worn devices. The limit below which the exposure to RF is considered safe by regulatory bodies in Europe is 2 mW/g average over 10 gram of tissue mass.

The test configurations were laid out on a specially designed test fixture to ensure the reproducibility of measurements. Each configuration was scanned for SAR. Analysis of each scan was carried out to characterize the above effects in the device.

SAR Limits

FCC Limit (1g Tissue)

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

CE Limit (10g Tissue)

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 10 g of tissue)	2.0	10
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0

Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

General Population/Uncontrolled environments Spatial Peak limit 1.6W/kg (FCC) & 2 W/kg (CE) applied to the EUT.

FACILITIES

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect data is located at 6/F, the 3rd Phase of WanLi Industrial Building, Shi Hua Road, Fu Tian Free Trade Zone, Shenzhen, Guangdong, P.R. of China

DESCRIPTION OF TEST SYSTEM

These measurements were performed with ALSAS 10 Universal Integrated SAR Measurement system from APREL Laboratories.

ALSAS-10U System Description

ALSAS-10-U is fully compliant with the technical and scientific requirements of IEEE 1528, IEC 62209, CENELEC, ARIB, ACA, and the Federal Communications Commission. The system comprises of a six axes articulated robot which utilizes a dedicated controller. ALSAS-10U uses the latest methodologies. And FDTD modeling to provide a platform which is repeatable with minimum uncertainty.

Applications

Predefined measurement procedures compliant with the guidelines of CENELEC, IEEE, IEC, FCC, etc are utilized during the assessment for the device. Automatic detection for all SAR maxima are embedded within the core architecture for the system, ensuring that peak locations used for centering the zoom scan are within a 1mm resolution and a 0.05mm repeatable position. System operation range currently available up-to 6 GHz in simulated tissue.

Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm2 step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

Where the system identifies multiple SAR peaks (which are within 25% of peak value) the system will provide the user with the option of assessing each peak location individually for zoom scan averaging.

Zoom Scan (Cube Scan Averaging)

The averaging zoom scan volume utilized in the ALSAS-10U software is in the shape of a cube and the side dimension of a 1 g or 10 g mass is dependent on the density of the liquid representing the simulated tissue. A density of 1000 kg/m3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm,with the side length of the 10 g cube 21,5mm.

When the cube intersects with the surface of the phantom, it is oriented so that 3 vertices touch the surface of the shell or the center of a face is tangent to the surface. The face of the cube closest to the surface is modified in order to conform to the tangent surface.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 5x5x8 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 35mm in the Z axis.

ALSAS-10U Interpolation and Extrapolation Uncertainty

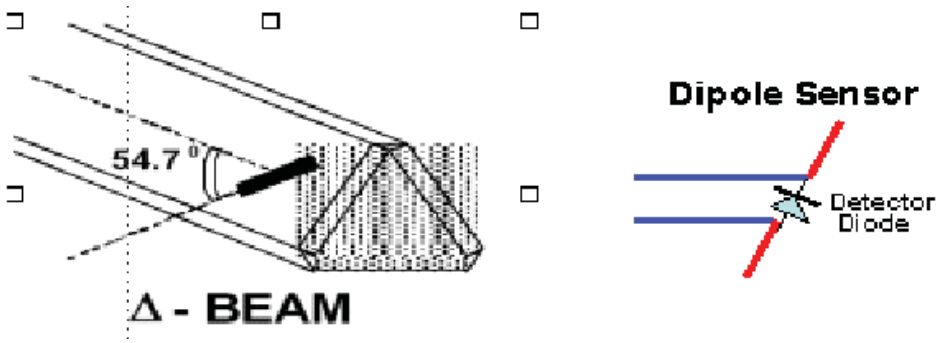
The overall uncertainty for the methodology and algorithms the used during the SAR calculation was evaluated using the data from IEEE 1528 based on the example f3 algorithm:

$$f_3(x,y,z) = A\frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2}\cdot\left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a+2z)^2}\right)$$

Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



SAR is assessed with a calibrated probe which moves at a default height of 5mm from the center of the diode, which is mounted to the sensor, to the phantom surface (in the Z Axis). The 5mm offset height has been selected so as to minimize any resultant boundary effect due to the probe being in close proximity to the phantom surface.

The following algorithm is an example of the function used by the system for linearization of the output from the probe when measuring complex modulation schemes.

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

Isotropic E-Field Probe Specification

Calibration Method	Frequency Dependent Below 1 GHz Calibration in air performed in a TEM Cell Above 1 GHz Calibration in air performed in waveguide
Sensitivity	0.70 μV/(V/m)^2 to 0.85 μV/(V/m)^2
Dynamic Range	0.0005 W/kg to 100 W/kg
Isotropic Response	Better than 0.1 dB
Diode Compression Point (DCP)	Calibration for Specific Frequency
Probe Tip Diameter	< 2.9 mm
Sensor Offset	1.56 (+/- 0.02 mm)
Probe Length	289 mm
Video Bandwidth	@ 500 Hz: 1 dB @ 1.02 kHz: 3 dB
Boundary Effect	Less than 2.1% for distance greater than 0.58 mm
Spatial Resolution	The spatial resolution uncertainty is less than 1.5% for 4.9mm diameter probe. The spatial resolution uncertainty is less than 1.0% for 2.5mm diameter probe

Boundary Detection Unit and Probe Mounting Device

ALSAS-10U incorporates a boundary detection unit with a sensitivity of 0.05mm for detecting all types of surfaces. The robust design allows for detection during probe tilt (probe normalize) exercises, and utilizes a second stage emergency stop. The signal electronics are fed directly into the robot controller for high accuracy surface detection in lateral and axial detection modes (X, Y, & Z).

The probe is mounted directly onto the Boundary Detection unit for accurate tooling and displacement calculations controlled by the robot kinematics. The probe is connect to an isolated probe interconnect where the output stage of the probe is fed directly into the amplifier stage of the Daq-Paq.

Daq-Paq (Analog to Digital Electronics)

ALSAS-10U incorporates a fully calibrated Daq-Paq (analog to digital conversion system) which has a 4 channel input stage, sent via a 2 stage auto-set amplifier module. The input signal is amplified accordingly so as to offer a dynamic range from 5μV to 800mV. Integration of the fields measured is carried out at board level utilizing a Co-Processor which then sends the measured fields down into the main computational module in digitized form via an RS232 communications port. Probe linearity and duty cycle compensation is carried out within the main Daq-Paq module.

ADC	12 Bit
Amplifier Range	20 mV to 200 mV and 150 mV to 800 mV
Field Integration	Local Co-Processor utilizing proprietary integration algorithms
Number of Input Channels	4 in total 3 dedicated and 1 spare
Communication	Packet data via RS232

Axis Articulated Robot

ALSAS-10U utilizes a six axis articulated robot, which is controlled using a Pentium based real-time movement controller. The movement kinematics engine utilizes proprietary (Thermo CRS) interpolation and extrapolation algorithms, which allow full freedom of movement for each of the six joints within the working envelope. Utilization of joint 6 allows for full probe rotation with a tolerance better than 0.05mm around the central axis.

Robot/Controller Manufacturer	Thermo CRS
Number of Axis	Six independently controlled axis
Positioning Repeatability	0.05 mm
Controller Type	Single phase Pentium based C500C
Robot Reach	710 mm
Communication	RS232 and LAN compatible

ALSAS Universal Workstation

ALSAS Universal workstation allows for repeatability and fast adaptability. It allows users to do calibration, testing and measurements using different types of phantoms with one set up, which significantly speeds up the measurement process.

Universal Device Positioner

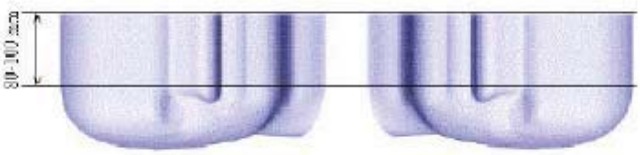
The universal device positioner allows complete freedom of movement of the EUT. Developed to hold a EUT in a free-space scenario any additional loading attributable to the material used in the construction of the positioner has been eliminated. Repeatability has been enhanced through the linear scales which form the design used to indicate positioning for any given test scenario in all major axes. A 15° tilt indicator is included for the of aid cheek to tilt movements for head SAR analysis. Overall uncertainty for measurements have been reduced due to the design of the Universal device positioner, which allows positioning of a device in as near to a free-space scenario as possible, and by providing the means for complete repeatability.

Phantom Types

The ALSAS-10U allows the integration of multiple phantom types. SAM Phantoms fully compliant with IEEE 1528, Universal Phantom, and Universal Flat.

APREL SAM Phantoms

The SAM phantoms developed using the IEEE SAM CAD file. They are fully compliant with the requirements for both IEEE 1528 and FCC Supplement C. Both the left and right SAM phantoms are interchangeable, transparent and include the IEEE 1528 grid with visible NF and MB lines.



APREL Laboratories Universal Phantom

The Universal Phantom is used on the ALSAS-10U as a system validation phantom. The Universal Phantom has been fully validated both experimentally from 800MHz to 6GHz and numerically using XFDTD numerical software.

The shell thickness is 2mm overall, with a 4mm spacer located at the NF/MB intersection providing an overall thickness of 6mm in line with the requirements of IEEE-1528.

The design allows for fast and accurate measurements, of handsets, by allowing the conservative SAR to be evaluated at on frequency for both left and right head experiments in one measurement.

Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (Nacl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton x-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (s/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

Recommended Tissue Dielectric Parameters for Head and Body

Frequency (MHz)	Head Tissue		Body Tissue	
	εr	σ (S/m)	εr	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

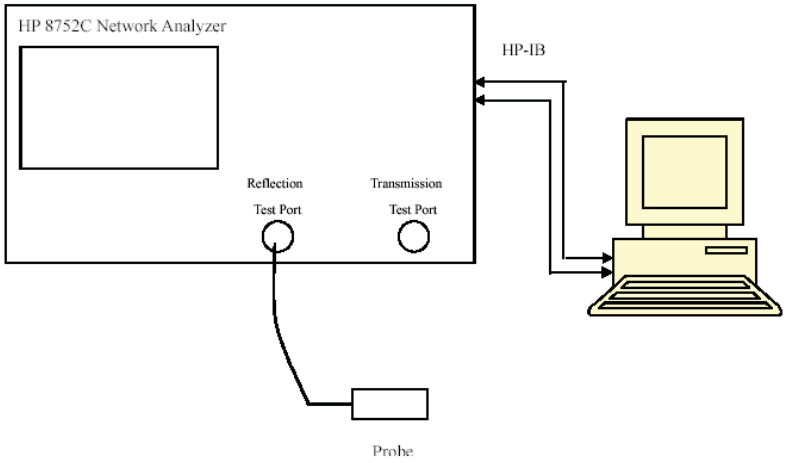
EQUIPMENT LIST AND CALIBRATION

Equipments List & Calibration Information

Equipment	Model	Calibration Date	S/N
CRS F3 robot	ALS-F3	N/A	RAF0805352
CRS F3 Software	ALS-F3-SW	N/A	N/A
CRS C500C controller	ALS-C500	N/A	RCF0805379
Probe mounting device & Boundary Detection Sensor System	ALS-PMDPS-3	N/A	120-00270
Universal Work Station	ALS-UWS	N/A	100-00157
Data Acquisition Package	ALS-DAQ-PAQ-3	2013-10-08	110-00212
Miniature E-Field Probe	ALS-E-020	2013-10-08	500-00283
Dipole, 835MHz	ALS-D-835-S-2	2011-08-25	180-00558
Dipole, 1900MHz	ALS-D-1900-S-2	2011-08-25	210-00710
Dipole Spacer	ALS-DS-U	N/A	250-00907
Device holder/Positioner	ALS-H-E-SET-2	N/A	170-00510
Left ear SAM phantom	ALS-P-SAM-L	N/A	130-00311
Right ear SAM phantom	ALS-P-SAM-R	N/A	140-00359
UniPhantom	ALS-P-UP-1	N/A	150-00413
Simulated Tissue 835 MHz Head	ALS-TS-835-H	Each Time	270-01002
Simulated Tissue 835 MHz Body	ALS-TS-835-B	Each Time	270-02101
Simulated Tissue 1900 MHz Head	ALS-TS-1900-H	Each Time	295-01103
Simulated Tissue 1900 MHz Body	ALS-TS-1900-B	Each Time	295-02102
Power Amplifier	5S1G4	N/A	71377
Synthesized Sweeper	HP 8341B	2014-05-08	2624A00116
UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	2013-11-23	106891
EMI Test Receiver	ESCI	2013-11-12	101120

SAR MEASUREMENT SYSTEM VERIFICATION

Liquid Verification



Liquid Verification Setup Block Diagram

Liquid Verification Results

Frequency	Liquid Type	Liquid Parameter		Target Value		Delta (%)		Tolerance (%)
		ε_r	σ (S/m)	ε_r	σ (S/m)	$\Delta\varepsilon_r$	$\Delta\sigma$ (S/m)	
824.2	Head	41.03	0.90	41.50	0.90	-1.133	0.000	±5
	Body	53.86	0.95	55.20	0.97	-2.427	-2.062	±5
826.4	Head	41.05	0.91	41.50	0.90	-1.084	1.111	±5
	Body	53.82	0.95	55.20	0.97	-2.500	-2.062	±5
836.6	Head	41.02	0.92	41.50	0.90	-1.157	2.222	±5
	Body	53.84	0.96	55.20	0.97	-2.464	-1.031	±5
846.6	Head	41.03	0.92	41.50	0.90	-1.133	2.222	±5
	Body	53.83	0.97	55.20	0.97	-2.482	0.000	±5
848.8	Head	41.01	0.92	41.50	0.90	-1.181	2.222	±5
	Body	53.83	0.98	55.20	0.97	-2.482	1.031	±5
1850.2	Head	39.69	1.37	40.00	1.40	-0.775	-2.143	±5
	Body	51.80	1.49	53.30	1.52	-2.814	-1.974	±5
1852.4	Head	39.63	1.38	40.00	1.40	-0.925	-1.429	±5
	Body	52.06	1.49	53.30	1.52	-2.326	-1.974	±5
1880.0	Head	39.56	1.40	40.00	1.40	-1.100	0.000	±5
	Body	51.89	1.51	53.30	1.52	-2.645	-0.658	±5
1907.6	Head	39.61	1.40	40.00	1.40	-0.975	0.000	±5
	Body	51.93	1.53	53.30	1.52	-2.570	0.658	±5
1909.8	Head	39.61	1.42	40.00	1.40	-0.975	1.429	±5
	Body	51.81	1.54	53.30	1.52	-2.795	1.316	±5

**Liquid Verification was performed on 2014-06-15.*

Please refer to the following tables.

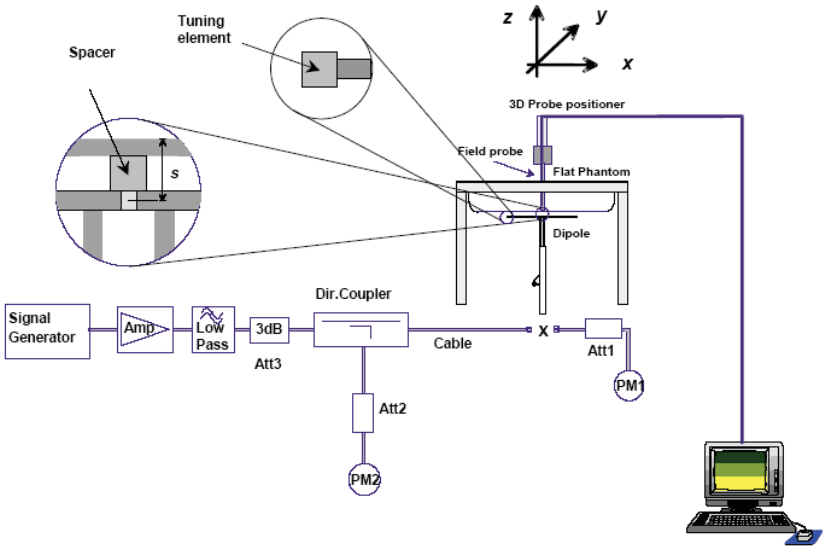
835 MHz Head				835 MHz Body		
Frequency (MHz)	e'	e''		Frequency (MHz)	e'	e''
824.0	41.0572	19.7554		824.0	53.8594	20.6467
824.5	41.0656	19.7449		824.5	53.7975	20.6405
825.0	41.0248	19.7615		825.0	53.8117	20.6209
825.5	41.0994	19.7431		825.5	53.7685	20.6466
826.0	41.0919	19.7684		826.0	53.7959	20.6902
826.5	41.0494	19.6976		826.5	53.8164	20.6572
827.0	41.0129	19.6715		827.0	53.7836	20.6966
827.5	41.0234	19.7460		827.5	53.8408	20.6751
828.0	41.0528	19.6641		828.0	53.8412	20.6907
828.5	41.0305	19.7204		828.5	53.8496	20.6983
829.0	41.0171	19.7632		829.0	53.8676	20.6676
829.5	41.0569	19.7538		829.5	53.8411	20.7057
830.0	41.0153	19.7065		830.0	53.7810	20.6125
830.5	41.0839	19.6662		830.5	53.8640	20.6791
831.0	41.0927	19.6849		831.0	53.8086	20.6135
831.5	41.0994	19.6855		831.5	53.8037	20.6375
832.0	41.0733	19.7129		832.0	53.8141	20.6383
832.5	41.0732	19.7207		832.5	53.8079	20.6787
833.0	41.0561	19.7512		833.0	53.7758	20.6479
833.5	41.0927	19.7342		833.5	53.8200	20.6608
834.0	41.0818	19.7371		834.0	53.8478	20.6972
834.5	41.0110	19.7646		834.5	53.7646	20.6298
835.0	41.0710	19.7685		835.0	53.7946	20.6995
835.5	41.0955	19.7004		835.5	53.7915	20.6852
836.0	41.1001	19.7598		836.0	53.7972	20.7091
836.5	41.0054	19.7673		836.5	53.8382	20.6205
837.0	40.9994	19.7442		837.0	53.8609	20.6620
837.5	41.0570	19.6874		837.5	53.7740	20.6517
838.0	41.1052	19.7229		838.0	53.7955	20.7024
838.5	41.1062	19.7266		838.5	53.8629	20.6268
839.0	41.0110	19.7023		839.0	53.8539	20.6805
839.5	41.0503	19.7320		839.5	53.8323	20.7103
840.0	41.0327	19.4197		840.0	53.8207	20.6153
840.5	41.0831	19.3633		840.5	53.7847	20.6229
841.0	41.0924	19.3927		841.0	53.7817	20.6395
841.5	41.0352	19.3637		841.5	53.7664	20.7002
842.0	41.0282	19.4644		842.0	53.8349	20.6341
842.5	41.0352	19.4377		842.5	53.7660	20.6535
843.0	41.0945	19.4638		843.0	53.8369	20.6371
843.5	41.1017	19.4597		843.5	53.7963	20.6589
844.0	41.0314	19.4586		844.0	53.8020	20.6478
844.5	41.0488	19.4212		844.5	53.7962	20.6728
845.0	41.0886	19.4390		845.0	53.7788	20.6168
845.5	41.0467	19.3884		845.5	53.7756	20.6374
846.0	41.0278	19.3970		846.0	53.8136	20.6173
846.5	41.0262	19.4425		846.5	53.8286	20.6907
847.0	41.0380	19.4015		847.0	53.8524	20.6224
847.5	41.0432	19.4681		847.5	53.7788	20.6377
848.0	41.0040	19.4600		848.0	53.7733	20.6889
848.5	41.0129	19.3910		848.5	53.8383	20.6791
849.0	41.0124	19.4358		849.0	53.8268	20.6875

1900 MHz Head				1900 MHz Body		
Frequency (MHz)	e'	e''		Frequency (MHz)	e'	e''
1850.0	39.6948	13.3050		1850.0	51.7953	14.5040
1851.2	39.6293	13.4229		1851.2	51.9866	14.4259
1852.4	39.6261	13.4336		1852.4	52.0563	14.4957
1853.6	39.6752	13.3334		1853.6	51.9542	14.5779
1854.8	39.7111	13.4130		1854.8	51.7335	14.4592
1856.0	39.5738	13.3346		1856.0	51.8918	14.4172
1857.2	39.5825	13.3525		1857.2	51.8035	14.5032
1858.4	39.6910	13.3574		1858.4	51.8917	14.5420
1859.6	39.7321	13.3298		1859.6	51.9795	14.5312
1860.8	39.6125	13.4035		1860.8	51.9322	14.4508
1862.0	39.6274	13.3888		1862.0	52.0310	14.4844
1863.2	39.5734	13.4018		1863.2	51.8076	14.4762
1864.4	39.5610	13.2737		1864.4	51.7999	14.5522
1865.6	39.6921	13.4260		1865.6	51.9514	14.4465
1866.8	39.6425	13.3322		1866.8	52.0370	14.4508
1868.0	39.7411	13.3898		1868.0	52.0724	14.4345
1869.2	39.5691	13.3862		1869.2	51.8529	14.5227
1870.4	39.6584	13.3854		1870.4	51.8557	14.5511
1871.6	39.6731	13.4232		1871.6	51.8258	14.4296
1872.8	39.5990	13.2751		1872.8	52.0091	14.5698
1874.0	39.6726	13.3506		1874.0	51.7721	14.4534
1875.2	39.6934	13.3110		1875.2	51.7631	14.5260
1876.4	39.6872	13.2947		1876.4	52.0216	14.5454
1877.6	39.7184	13.3361		1877.6	51.9941	14.5627
1878.8	39.7261	13.4310		1878.8	51.7439	14.4150
1880.0	39.5622	13.3614		1880.0	51.8854	14.4195
1881.2	39.6436	13.3067		1881.2	52.0450	14.5216
1882.4	39.7115	13.2828		1882.4	51.9522	14.4677
1883.6	39.5731	13.4204		1883.6	51.9648	14.5082
1884.8	39.5622	13.4057		1884.8	51.8899	14.4539
1886.0	39.6035	13.2757		1886.0	52.0543	14.4198
1887.2	39.6425	13.2728		1887.2	52.0917	14.4298
1888.4	39.5761	13.4086		1888.4	51.9002	14.4247
1889.6	39.6415	13.2740		1889.6	51.7852	14.5614
1890.8	39.5646	13.4069		1890.8	51.8691	14.4653
1892.0	39.6554	13.3050		1892.0	52.0030	14.5266
1893.2	39.7344	13.3806		1893.2	52.0505	14.5726
1894.4	39.6323	13.2607		1894.4	52.0700	14.5641
1895.6	39.5709	13.2673		1895.6	51.7668	14.4275
1896.8	39.7258	13.4191		1896.8	51.7468	14.4330
1898.0	39.7367	13.2530		1898.0	52.0301	14.5631
1899.2	39.5442	13.4302		1899.2	51.7871	14.4520
1900.4	39.7108	13.2659		1900.4	51.9213	14.4210
1901.6	39.6585	13.2408		1901.6	51.9382	14.5369
1902.8	39.6259	13.4004		1902.8	51.9482	14.4929
1904.0	39.5654	13.2879		1904.0	51.8068	14.5625
1905.2	39.5445	13.2647		1905.2	51.8623	14.4215
1906.4	39.6479	13.3658		1906.4	51.9705	14.4964
1907.6	39.6113	13.2458		1907.6	51.9277	14.4600
1908.8	39.5567	13.3487		1908.8	51.8547	14.5199
1910.0	39.6140	13.3454		1910.0	51.8090	14.5461

System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

System Verification Setup Block Diagram



Probe and dipole antenna List and Detail

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
APREL	Probe	ALS-E-020	500-00283	2013-10-08	2014-10-07
APREL	Dipole antenna(850MHz)	ALS-D-835-S-2	180-00558	2011-08-25	2014-08-24
APREL	Dipole antenna(1900MHz)	ALS-D-1900-S-2	210-00710	2011-08-25	2014-08-24

System Accuracy Check Results

Date	Frequency Band	Liquid Type	Measured SAR (W/Kg)		Target Value (W/Kg)	Delta (%)	Tolerance (%)
2014-06-15	835	Head	1g	9.815	9.590	2.346	±10
		Body	1g	9.974	9.684	2.995	±10
	1900	Head	1g	40.138	39.648	1.236	±10
		Body	1g	41.203	39.769	3.606	±10

*All SAR values are normalized to 1 Watt forward power.

SAR SYSTEM VALIDATION DATA

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

System Performance Check 835 MHz Head Liquid

Dipole 835 MHz; Type: ALS-D-835-S-2; S/N: 180-00558

Product Data
Device Name : Dipole 835 MHz
Serial No. : 180-00558
Type : Dipole
Model : ALS-D-835-S-2
Frequency Band : 835
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 9.618 W/kg
Power Drift-Finish : 9.695 W/kg
Power Drift (%) : 0.847

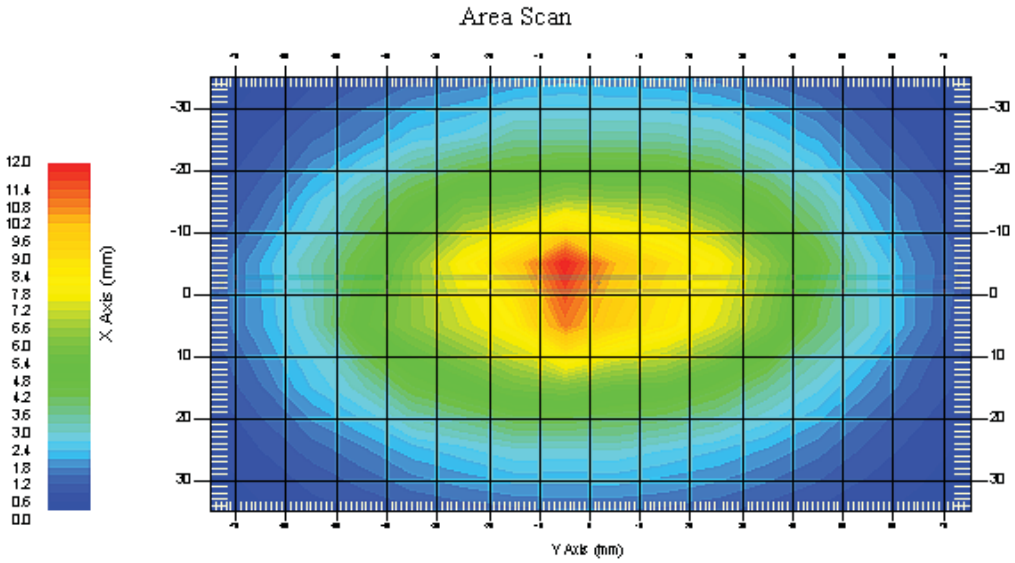
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Default
Phantom Data

Tissue Data
Type : Head
Serial No. : 270-01002
Frequency : 835.0 MHz
Last Calib. Date : 15-Jun-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 41.07 F/m
Sigma : 0.92 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 21.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 9.815 W/kg
10 gram SAR value : 6.472 W/kg
Area Scan Peak SAR : 11.993 W/kg
Zoom Scan Peak SAR : 17.102 W/kg



835 MHz System Validation with Head Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

System Performance Check 835 MHz Body Liquid

Dipole 835 MHz; Type: ALS-D-835-S-2; S/N: 180-00558

Product Data
Device Name : Dipole 835 MHz
Serial No. : 180-00558
Type : Dipole
Model : ALS-D-835-S-2
Frequency Band : 835
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 10.212 W/kg
Power Drift-Finish : 10.101 W/kg
Power Drift (%) : -1.123

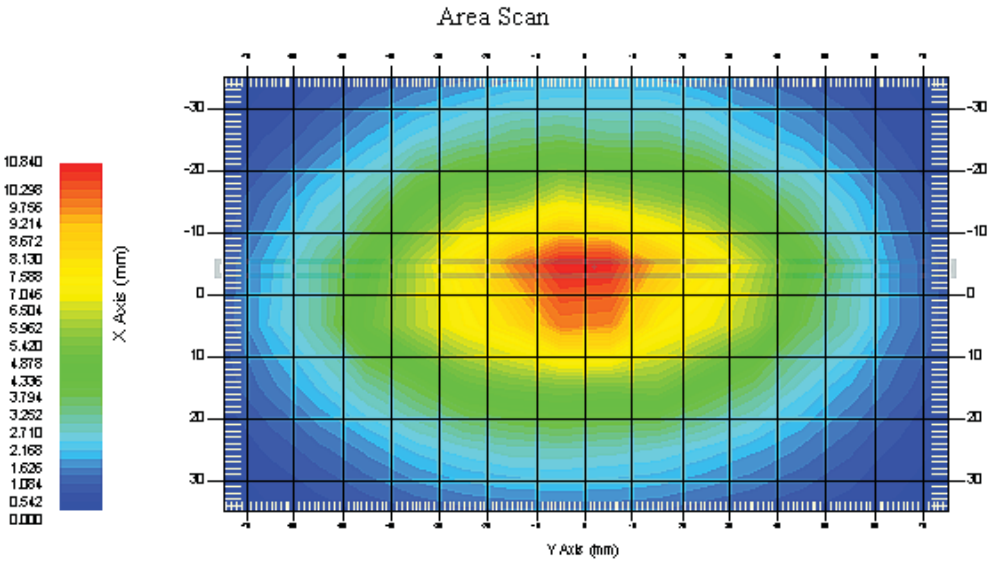
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Default
Phantom Data

Tissue Data
Type : Body
Serial No. : 270-02101
Frequency : 835.0 MHz
Last Calib. Date : 15-Jun-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 53.79 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 21.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 9.974 W/kg
10 gram SAR value : 6.603 W/kg
Area Scan Peak SAR : 10.835 W/kg
Zoom Scan Peak SAR : 16.981 W/kg



835 MHz System Validation with Body Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

System Performance Check 1900 MHz Head Liquid

Dipole 1900 MHz; Type: ALS-D-1900-S-2; S/N: 210-00710

Product Data
Device Name : Dipole 1900MHz
Serial No. : 210-00710
Type : Dipole
Model : ALS-D-1900-S-2
Frequency Band : 1900
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 39.021 W/kg
Power Drift-Finish : 39.518 W/kg
Power Drift (%) : 1.175

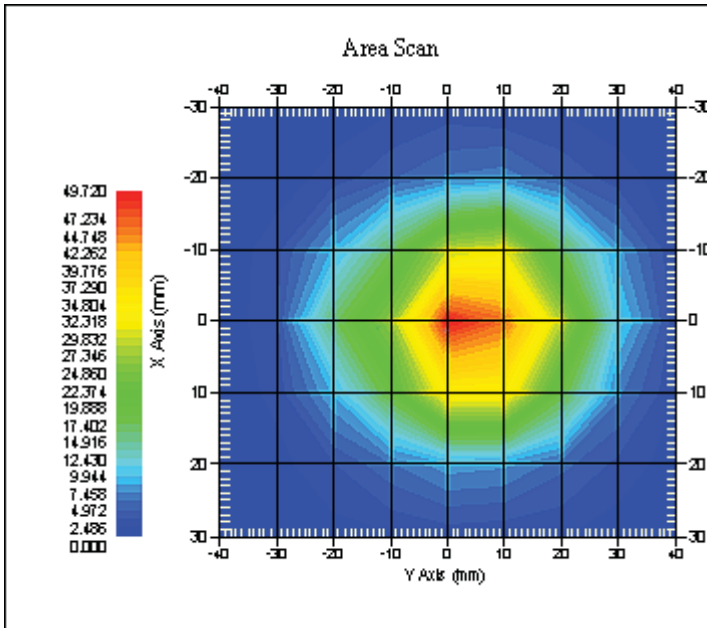
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Default

Tissue Data
Type : Head
Serial No. : 295-01103
Frequency : 1900.00 MHz
Last Calib. Date : 15-Jun-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 39.68 F/m
Sigma : 1.41 S/m
Density : 1000.00 kg/cu. M

Probe Data
Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 20.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 40.138 W/kg
10 gram SAR value : 21.242 W/kg
Area Scan Peak SAR : 47.958 W/kg
Zoom Scan Peak SAR : 77.113 W/kg



1900 MHz System Validation with Head Tissue

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

System Performance Check 1900 MHz Body Liquid

Dipole 1900 MHz; Type: ALS-D-1900-S-2; S/N: 210-00710

Product Data
Device Name : Dipole 1900MHz
Serial No. : 210-00710
Type : Dipole
Model : ALS-D-1900-S-2
Frequency Band : 1900
Max. Transmit Pwr : 1 W
Drift Time : 3 min(s)
Power Drift-Start : 40.857 W/kg
Power Drift-Finish : 40.102 W/kg
Power Drift (%) : -2.195

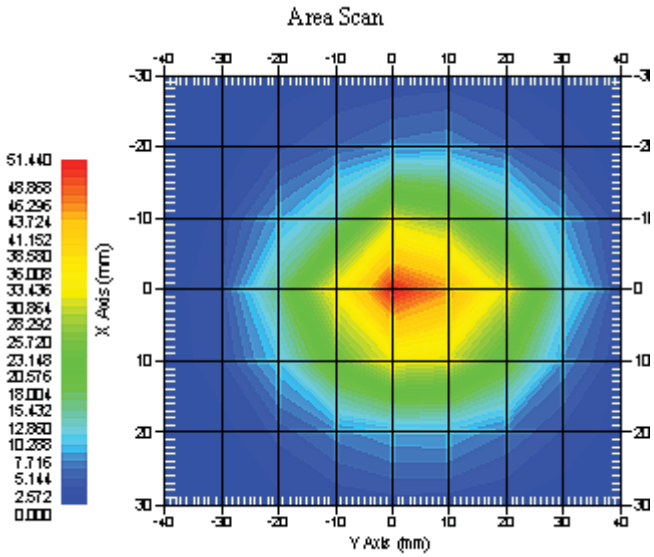
Phantom Data
Name : APREL-Uni
Type : Uni-Phantom
Size (mm) : 280 x 280 x 200
Serial No. : System Default
Location : Center
Description : Default

Tissue Data
Type : Body
Serial No. : 295-02102
Frequency : 1900.00 MHz
Last Calib. Date : 15-Jun-2014
Temperature : 20.00 °C
Ambient Temp. : 21.00 °C
Humidity : 56.00 RH%
Epsilon : 51.85 F/m
Sigma : 1.52 S/m
Density : 1000.00 kg/cu. m

Probe Data
Name : E-Field
Model : E-020
Type : E-Field Triangle
Serial No. : 500-00283
Last Calib. Date : 08-Oct-2013
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 21.00 °C
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm

1 gram SAR value : 41.203 W/kg
10 gram SAR value : 22.315 W/kg
Area Scan Peak SAR : 49.354 W/kg
Zoom Scan Peak SAR : 81.107 W/kg



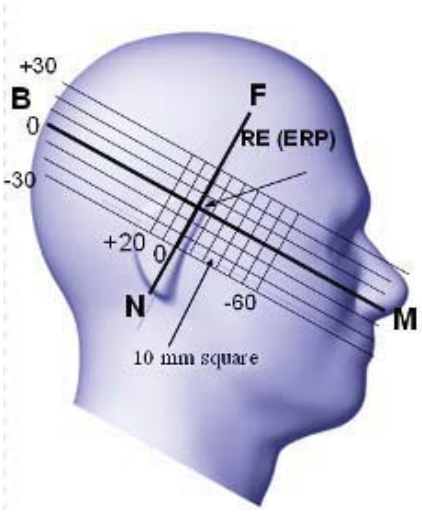
1900 MHz System Validation with Body Tissue

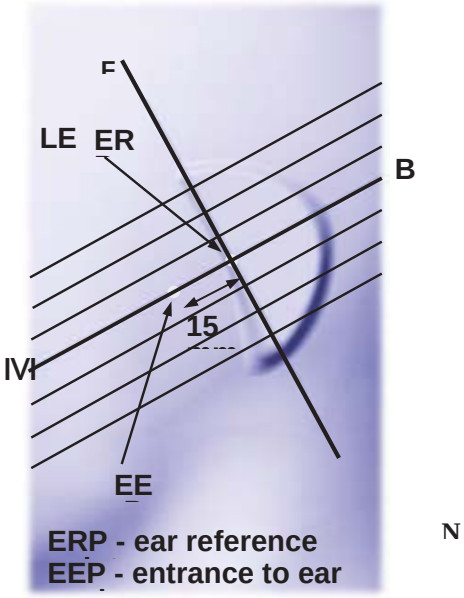
EUT TEST STRATEGY AND METHODOLOGY

Test Positions for Device Operating Next to a Person's Ear

This category includes most wireless handsets with fixed, retractable or internal antennas located toward the top half of the device, with or without a foldout, sliding or similar keypad cover. The handset should have its earpiece located within the upper ¼ of the device, either along the centerline or off-centered, as perceived by its users. This type of handset should be positioned in a normal operating position with the "test device reference point" located along the "vertical centerline" on the front of the device aligned to the "ear reference point". The "test device reference point" should be located at the same level as the center of the earpiece region. The "vertical centerline" should bisect the front surface of the handset at its top and bottom edges. A "ear reference point" is located on the outer surface of the head phantom on each ear spacer. It is located 1.5 cm above the center of the ear canal entrance in the "phantom reference plane" defined by the three lines joining the center of each "ear reference point" (left and right) and the tip of the mouth.

A handset should be initially positioned with the earpiece region pressed against the ear spacer of a head phantom. For the SCC-34/SC-2 head phantom, the device should be positioned parallel to the "N-F" line defined along the base of the ear spacer that contains the "ear reference point". For interim head phantoms, the device should be positioned parallel to the cheek for maximum RF energy coupling. The "test device reference point" is aligned to the "ear reference point" on the head phantom and the "vertical centerline" is aligned to the "phantom reference plane". This is called the "initial ear position". While maintaining these three alignments, the body of the handset is gradually adjusted to each of the following positions for evaluating SAR:





Cheek/Touch Position

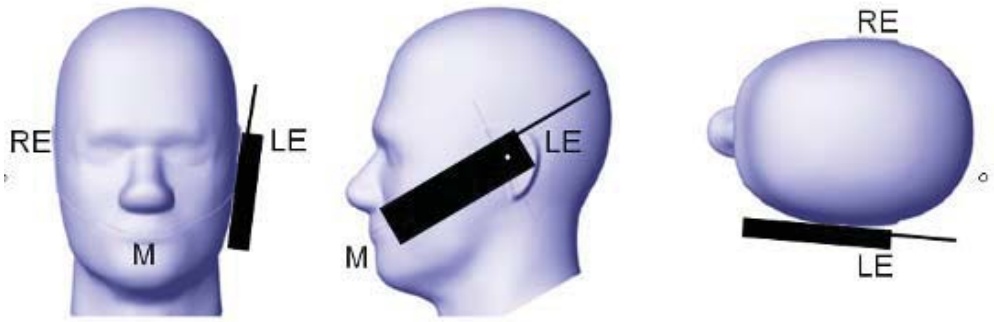
The device is brought toward the mouth of the head phantom by pivoting against the "ear reference point" or along the "N-F" line for the SCC-34/SC-2 head phantom.

This test position is established:

- When any point on the display, keypad or mouthpiece portions of the handset is in contact with the phantom.
- (or) When any portion of a foldout, sliding or similar keypad cover opened to its intended self-adjusting normal use position is in contact with the cheek or mouth of the phantom.

For existing head phantoms – when the handset loses contact with the phantom at the pivoting point, rotation should continue until the device touches the cheek of the phantom or breaks its last contact from the ear spacer.

Cheek /Touch Position



Ear/Tilt Position

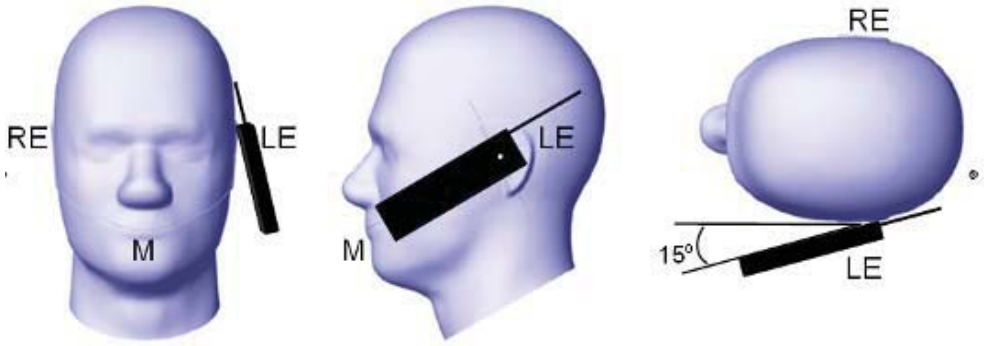
With the handset aligned in the "Cheek/Touch Position":

1) If the earpiece of the handset is not in full contact with the phantom's ear spacer (in the "Cheek/Touch position") and the peak SAR location for the "Cheek/Touch" position is located at the ear spacer region or corresponds to the earpiece region of the handset, the device should be returned to the "initial ear position" by rotating it away from the mouth until the earpiece is in full contact with the ear spacer.

2) (otherwise) The handset should be moved (translated) away from the cheek perpendicular to the line passes through both "ear reference points" (note: one of these ear reference points may not physically exist on a split head model) for approximate 2-3 cm. While it is in this position, the device handset is tilted away from the mouth with respect to the "test device reference point" until the inside angle between the vertical centerline on the front surface of the phone and the horizontal line passing through the ear reference point isby 15 80°. After the tilt, it is then moved (translated) back toward the head perpendicular to the line passes through both "ear reference points" until the device touches the phantom or the ear spacer. If the antenna touches the head first, the positioning process should be repeated with a tilt angle less than 15° so that the device and its antenna would touch the phantom simultaneously. This test position may require a device holder or positioner to achieve the translation and tilting with acceptable positioning repeatability.

If a device is also designed to transmit with its keypad cover closed for operating in the head position, such positions should also be considered in the SAR evaluation. The device should be tested on the left and right side of the head phantom in the "Cheek/Touch" and "Ear/Tilt" positions. When applicable, each configuration should be tested with the antenna in its fully extended and fully retracted positions. These test configurations should be tested at the high, middle and low frequency channels of each operating mode; for example, AMPS, CDMA, and TDMA. If the SAR measured at the middle channel for each test configuration (left, right, Cheek/Touch, Tile/Ear, extended and retracted) is at least 2.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s). If the transmission band of the test device is less than 10 MHz, testing at the high and low frequency channels is optional.

Ear /Tilt 15° Position



Test positions for body-worn and other configurations

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. When multiple accessories that do not contain metallic components are supplied with the device, the device may be tested with only the accessory that dictates the closest spacing to the body. When multiple accessories that contain metallic components are supplied with the device, the device must be tested with each accessory that contains a unique metallic component. If multiple accessories share an identical metallic component (e.g., the same metallic belt-clip used with different holsters with no other metallic components), only the accessory that dictates the closest spacing to the body must be tested.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distances may be used, but they should not exceed 2.5 cm. In these cases, the device may use body-worn accessories that provide a separation distance greater than that tested for the device provided however that the accessory contains no metallic components.

SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop. The SAR at this point is measured at the start of the test and then again at the end of the testing.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 4 mm from the inner surface of the shell. The area covered the entire dimension of the head or EUT and the horizontal grid spacing was 10 mm x 10 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation. The first Area Scan covers the entire dimension of the EUT to ensure that the hotspot was correctly identified.

Step 3: Around this point, a volume of 35 mm x 35 mm x 35 mm was assessed by measuring 7x 7 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

1) The data at the surface were extrapolated, since the center of the dipoles is 1.2 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

2) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one dimensional splines with the “Not a knot"-condition (in x, y and z-directions). The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the averages.

All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

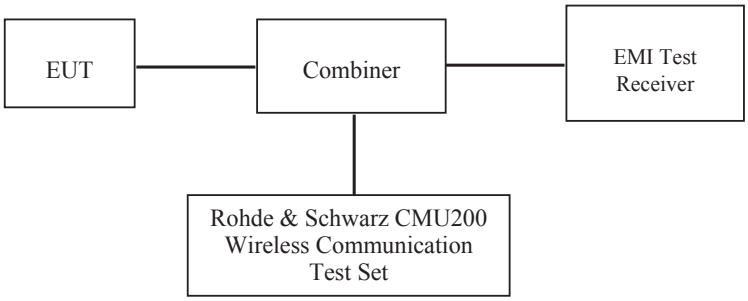
CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

The RF output of the transmitter was connected to the input of the EMI Test Receiver through sufficient attenuation.



GSM&3G

Maximum Output Power among production units

Max Target Power for Production Unit (dBm)			
Mode/Band	Channel		
	Low	Middle	High
GSM 850	33.00	33.00	33.00
GPRS 1 slot	33.50	33.50	33.50
GPRS 2 slot	32.50	32.50	32.50
GPRS 3 slot	30.50	30.50	30.50
GPRS 4 slot	29.50	29.50	29.50
PCS 1900	30.20	30.20	30.20
GPRS 1 slot	30.20	30.20	30.20
GPRS 2 slot	29.50	29.00	29.00
GPRS 3 slot	27.50	27.50	27.50
GPRS 4 slot	26.50	26.50	26.50
WCDMA850	23.00	23.00	23.00
WCDMA1900	22.50	22.50	22.50
WiFi	9.50	9.50	9.50
Bluetooth	7.00	7.00	7.00

Test Results:

GSM:

Band	Frequency (MHz)	Conducted Output Power	
		Meas. Power (dBm)	Meas. Power (W)
GSM 850	824.2	32.81	1.910
	836.6	32.82	1.914
	848.8	32.91	1.954
PCS 1900	1850.2	30.02	1.005
	1880.0	29.71	0.935
	1909.8	29.57	0.906

GPRS :

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	33.19	32.33	30.49	29.28
	190	836.6	33.02	32.28	30.34	29.20
	251	848.8	33.01	32.30	30.36	29.19
PCS 1900	512	1850.2	30.08	29.25	27.36	26.15
	661	1880.0	29.83	28.99	27.16	26.00
	810	1909.8	29.81	28.97	27.24	26.09

EGPRS :

Band	Channel No.	Frequency (MHz)	RF Output Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	27.54	26.25	23.78	22.29
	190	836.6	27.15	25.81	23.38	21.90
	251	848.8	26.77	25.42	22.99	21.48
PCS 1900	512	1850.2	26.72	25.55	23.3	21.55
	661	1880.0	26.57	25.4	23.06	21.32
	810	1909.8	26.20	24.97	22.47	20.82

For SAR, the time based average power is relevant, the difference in between depends on the duty cycle of the TDMA signal.

Number of Time slot	1	2	3	4
Duty Cycle	1:8	1:4	1:2.66	1:2
Time based Ave. power compared to slotted Ave. power	-9 dB	-6 dB	-4.25 dB	-3 dB
Crest Factor	8	4	2.66	2

The time based average power for GPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	24.19	26.33	26.24	26.28
	190	836.6	24.02	26.28	26.09	26.20
	251	848.8	24.01	26.30	26.11	26.19
PCS 1900	512	1850.2	21.08	23.25	23.11	23.15
	661	1880.0	20.83	22.99	22.91	23.00
	810	1909.8	20.81	22.97	22.99	23.09

The time based average power for EGPRS

Band	Channel No.	Frequency (MHz)	Time based average Power (dBm)			
			1 slot	2 slot	3 slots	4 slots
GSM 850	128	824.2	18.54	20.25	19.53	19.29
	190	836.6	18.15	19.81	19.13	18.90
	251	848.8	17.77	19.42	18.74	18.48
PCS 1900	512	1850.2	17.72	19.55	19.05	18.55
	661	1880.0	17.57	19.40	18.81	18.32
	810	1909.8	17.20	18.97	18.22	17.82

Note:
1. Rohde & Schwarz Radio Communication Tester (CMU200) was used for the measurement of GSM peak and average output power for active timeslots.
2. For GSM voice, 1 timeslot has been activated with power level 5 (850 MHz band) and 0 (1900 MHz band).
3. For GPRS, 1, 2, 3 and 4 timeslots has been activated separately with power level 3(850 MHz band) and 3(1900 MHz band).
4. For E-GRPS, 1, 2, 3 and 4 timeslots has been activated separately with power control level 6(850 MHz band) and 5(1900 MHz band).
5. The max average output power of the GPRS mode is more than 2 dB higher than the EGPRS measured in the same frequency band, according to IEEE1528, the SAR of EGPRS mode is not required.

WCDMA-Release 99:

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

WCDMA General Settings	**Loopback Mode**	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc /βd	8/15

Results (12.2kbps RMC)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power	
			(dBm)	(Watt)
WCDMA 850	826.4	4132	22.66	0.185
	836.6	4183	22.48	0.177
	846.6	4233	22.62	0.183
WCDMA 1900	1852.4	9262	22.09	0.162
	1880.0	9400	21.92	0.156
	1907.6	9538	21.52	0.142

WCDMA HSDPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subset	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/ βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR(dB)	0	0	0.5	0.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	D_{CQI}	8			
	Ack-Nack repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs= βhs/βc	30/15			

Results (HSDPA)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power (dBm)			
			Subset 1	Subset 2	Subset 3	Subset 4
WCDMA 850	826.4	4132	22.12	22.06	22.18	22.02
	836.6	4183	21.98	21.92	22.10	21.91
	846.6	4233	21.86	21.80	21.92	21.76
WCDMA 1900	1852.4	9262	21.52	21.43	21.62	21.48
	1880.0	9400	21.39	21.27	21.47	21.35
	1907.6	9538	20.99	20.88	21.09	20.95

WCDMA HSUPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βœc	209/225	12/15	30/15	2/15	5/15
	βc/ βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	Ahs= βhs/βc	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCIs	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

Results (HSUPA)

Band	Frequency (MHz)	Channel NO.	Conducted Output Power (dBm)				
			Subset 1	Subset 2	Subset 3	Subset 4	Subset 5
WCDMA 850	826.4	4132	22.11	22.04	22.15	22.00	22.15
	836.6	4183	22.01	21.96	22.12	21.93	22.08
	846.6	4233	21.89	21.78	21.93	21.86	21.92
WCDMA 1900	1852.4	9262	21.48	21.35	21.57	21.38	21.59
	1880.0	9400	21.35	21.28	21.40	21.31	21.40
	1907.6	9538	20.93	20.87	21.02	20.88	21.06

Note:

1. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model 1.
2. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
3. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

Bluetooth

Mode	Channel frequency (MHz)	Reading power (dBm)	Power output (mw)
BDR(GFSK)	(Low)2402	6.05	4.03
	(Middle)2441	6.67	4.65
	(High)2480	6.86	4.85
EDR(4-DQPSK)	(Low)2402	5.41	3.48
	(Middle)2441	6.05	4.03
	(High)2480	6.17	4.14
EDR-8DPSK	(Low)2402	5.64	3.66
	(Middle)2441	6.30	4.27
	(High)2480	6.41	4.38

WiFi

Band	Frequency (MHz)	Conducted Output Power	
		(dBm)	(mw)
802.11b	2412	9.27	8.453
	2437	9.49	8.892
	2462	9.24	8.395
802.11g	2412	9.29	8.492
	2437	9.35	8.610
	2462	8.66	7.345
802.11n-HT20	2412	9.21	8.337
	2437	9.23	8.375
	2462	9.26	8.433
802.11n-HT40	2422	8.81	7.603
	2437	8.84	7.656
	2452	9.02	7.980

Note:

1. The output power was tested under data rate 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n-HT20,13.5Mbps for 802.11n-HT40.

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

SAR Test Data

Environmental Conditions

Temperature:	21-24 ℃
Relative Humidity:	50-53 %
ATM Pressure:	1001-1002 mbar

Testing was performed by Wilson Chen from 2014-06-15 to 2014-06-16.

GSM 850:

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	128(Low)	824.2	GSM	2.102	32.81	33.00	1.045	0.491	0.513
	190(Middle)	836.6	GSM	-0.728	32.82	33.00	1.042	0.502	0.523
	251(High)	848.8	GSM	-2.247	32.91	33.00	1.021	0.513	0.524
Left Head Tilt	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	2.574	32.82	33.00	1.042	0.286	0.298
	251(High)	848.8	GSM	/	/	/	/	/	/
Right Head Cheek	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	-1.298	32.82	33.00	1.042	0.476	0.496
	251(High)	848.8	GSM	/	/	/	/	/	/
Right Head Tilt	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	3.312	32.82	33.00	1.042	0.253	0.264
	251(High)	848.8	GSM	/	/	/	/	/	/
Body-Front-Headset (10mm)	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	-1.789	32.82	33.00	1.042	0.195	0.203
	251(High)	848.8	GSM	/	/	/	/	/	/
Body-Back-Headset (10mm)	128(Low)	824.2	GSM	/	/	/	/	/	/
	190(Middle)	836.6	GSM	0.852	32.82	33.00	1.042	0.458	0.477
	251(High)	848.8	GSM	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

PCS Band:

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	512(Low)	1850.2	GSM	0.884	30.02	30.20	1.042	0.859	0.895
	661(Middle)	1880.0	GSM	-1.109	29.71	30.00	1.069	0.785	0.839
	810(High)	1909.8	GSM	-1.869	29.57	30.00	1.104	0.812	0.896
Left Head Tilt	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	2.079	29.71	30.00	1.069	0.372	0.398
	810(High)	1909.8	GSM	/	/	/	/	/	/
Right Head Cheek	512(Low)	1850.2	GSM	0.829	30.02	30.20	1.042	0.872	0.909
	661(Middle)	1880.0	GSM	-1.287	29.71	30.00	1.069	0.835	0.893
	810(High)	1909.8	GSM	-0.573	29.57	30.00	1.104	0.802	0.885
Right Head Tilt	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	-1.518	29.71	30.00	1.069	0.391	0.418
	810(High)	1909.8	GSM	/	/	/	/	/	/
Body-Front-Headset (10mm)	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	0.698	29.71	30.00	1.069	0.592	0.633
	810(High)	1909.8	GSM	/	/	/	/	/	/
Body-Back-Headset (10mm)	512(Low)	1850.2	GSM	/	/	/	/	/	/
	661(Middle)	1880.0	GSM	-2.331	29.71	30.00	1.069	0.616	0.659
	810(High)	1909.8	GSM	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

WCDMA 850

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	4132	826.4	WCDMA 850	-0.245	22.66	23.00	1.081	0.153	0.165
	4183	836.6	WCDMA 850	/	/	/	/	/	/
	4233	846.6	WCDMA 850	/	/	/	/	/	/
Left Head Tilt	4132	826.4	WCDMA 850	-1.132	22.66	23.00	1.081	0.128	0.138
	4183	836.6	WCDMA 850	/	/	/	/	/	/
	4233	846.6	WCDMA 850	/	/	/	/	/	/
Right Head Cheek	4132	826.4	WCDMA 850	-3.198	22.66	23.00	1.081	0.145	0.157
	4183	836.6	WCDMA 850	/	/	/	/	/	/
	4233	846.6	WCDMA 850	/	/	/	/	/	/
Right Head Tilt	4132	826.4	WCDMA 850	1.957	22.66	23.00	1.081	0.135	0.146
	4183	836.6	WCDMA 850	/	/	/	/	/	/
	4233	846.6	WCDMA 850	/	/	/	/	/	/

WCDMA1900

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Left Head Cheek	9262	1852.4	WCDMA1900	1.639	22.09	22.50	1.099	0.596	0.655
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Left Head Tilt	9262	1852.4	WCDMA1900	-1.375	22.09	22.50	1.099	0.362	0.398
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Right Head Cheek	9262	1852.4	WCDMA1900	-0.897	22.09	22.50	1.099	0.557	0.612
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Right Head Tilt	9262	1852.4	WCDMA1900	1.381	22.09	22.50	1.099	0.370	0.407
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
3. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

4. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Mobile Hot-Spot Test Result

The DUT is capable of functioning as a WiFi to Cellular Mobile hotspot. Additional SAR testing was performed according to KDB 941225 D06. Testing was performed with a separation of 1cm between the DUT and the flat phantom. The DUT was positioned for SAR tests with the front and back surfaces facing the phantom, and also with the edges facing the phantom in which the transmitting antenna is <2.5 cm from the edge. Each transmit band was utilized for SAR testing. The tested mode has been selected within each band that exhibits the highest time average output power.

Hot spot-GPRS (Frequency Band: 835)

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	128(Low)	824.2	GPRS	2.377	32.33	32.50	1.040	0.367	0.382
	190(Middle)	836.6	GPRS	/	/	/	/	/	/
	251(High)	848.8	GPRS	/	/	/	/	/	/
Body-Back (10mm)	128(Low)	824.2	GPRS	1.628	32.33	32.50	1.040	0.914	0.951
	190(Middle)	836.6	GPRS	-1.736	32.28	32.50	1.052	0.842	0.886
	251(High)	848.8	GPRS	-0.799	32.30	32.50	1.047	0.752	0.787
Body-Left (10mm)	128(Low)	824.2	GPRS	2.103	32.33	32.50	1.040	0.448	0.466
	190(Middle)	836.6	GPRS	/	/	/	/	/	/
	251(High)	848.8	GPRS	/	/	/	/	/	/
Body-Top (10mm)	128(Low)	824.2	GPRS	-2.581	32.33	32.50	1.040	0.471	0.490
	190(Middle)	836.6	GPRS	/	/	/	/	/	/
	251(High)	848.8	GPRS	/	/	/	/	/	/

Note:
1 .When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT is a Capability Class B mobile phone which can be attached to both GPRS and GSM services.
3.The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.
4. The EUT transmit and receive through the same GSM antenna while testing SAR.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Hot spot-GPRS (Frequency Band: 1900)

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	512(Low)	1850.2	GPRS	1.179	29.25	29.50	1.059	1.195	1.266
	661(Middle)	1880.0	GPRS	-1.859	28.99	29.00	1.002	1.102	1.104
	810(High)	1909.8	GPRS	-1.485	28.97	29.00	1.007	1.216	1.225
Body-Back (10mm)	512(Low)	1850.2	GPRS	1.628	29.25	29.50	1.059	1.274	1.349
	661(Middle)	1880.0	GPRS	-0.757	28.99	29.00	1.002	1.152	1.154
	810(High)	1909.8	GPRS	2.614	28.97	29.00	1.007	1.170	1.178
Body-Left (10mm)	512(Low)	1850.2	GPRS	1.042	29.25	29.50	1.059	0.348	0.369
	661(Middle)	1880.0	GPRS	/	/	/	/	/	/
	810(High)	1909.8	GPRS	/	/	/	/	/	/
Body-Top (10mm)	512(Low)	1850.2	GPRS	-0.847	29.25	29.50	1.059	0.798	0.845
	661(Middle)	1880.0	GPRS	-2.296	28.99	29.00	1.002	0.847	0.849
	810(High)	1909.8	GPRS	1.859	28.97	29.00	1.007	0.912	0.918

Note:
1 .When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The EUT is a Capability Class B mobile phone which can be attached to both GPRS and GSM services.
3. The Multi-slot Classes of EUT is Class12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.
4. The EUT transmit and receive through the same GSM antenna while testing SAR.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

Hot Spot-WCDMA850

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	4132	826.4	WCDMA850	1.257	22.66	23.00	1.081	0.095	0.103
	4183	836.6	WCDMA850	/	/	/	/	/	/
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Back (10mm)	4132	826.4	WCDMA850	3.197	22.66	23.00	1.081	0.263	0.284
	4183	836.6	WCDMA850	/	/	/	/	/	/
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Left (10mm)	4132	826.4	WCDMA850	-0.314	22.66	23.00	1.081	0.084	0.091
	4183	836.6	WCDMA850	/	/	/	/	/	/
	4233	846.6	WCDMA850	/	/	/	/	/	/
Body-Top (10mm)	4132	826.4	WCDMA850	1.623	22.66	23.00	1.081	0.119	0.129
	4183	836.6	WCDMA850	/	/	/	/	/	/
	4233	846.6	WCDMA850	/	/	/	/	/	/

Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
3. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
4. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

Hot Spot-WCDMA1900

EUT Position	Frequency (MHz)		Test Mode	Power Drift (%)	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	FCC 1g SAR (W/Kg)		
	Channel	MHz					Scaled Factor	Meas. SAR	Scaled SAR
Body-Front (10mm)	9262	1852.4	WCDMA1900	-1.773	22.09	22.50	1.099	0.364	0.400
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Back (10mm)	9262	1852.4	WCDMA1900	-0.813	22.09	22.50	1.099	0.411	0.452
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Left (10mm)	9262	1852.4	WCDMA1900	-0.307	22.09	22.50	1.099	0.109	0.120
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/
Body-Top (10mm)	9262	1852.4	WCDMA1900	2.378	22.09	22.50	1.099	0.178	0.196
	9400	1880.0	WCDMA1900	/	/	/	/	/	/
	9538	1907.6	WCDMA1900	/	/	/	/	/	/

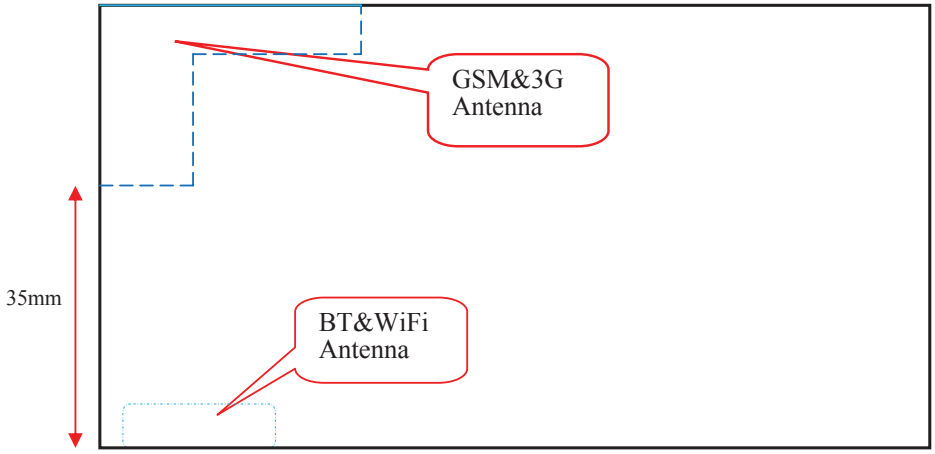
Note:
1. When the 1-g SAR is ≤ 0.8W/Kg, testing for other channels are optional.
2. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
3. KDB 941225 D01-Body SAR is not required for HSDPA when the maximum average output of each RF channel with HSDPA active is less than ¼ dB higher than measured without HSDPA using 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.
4. KDB 941225 D01-Body SAR is not required for HSUPA when the maximum average output of each RF channel with HSUPA active is less than ¼ dB higher than measured without HSUPA using 12.2kbps RMC and the maximum SAR for 12.2kbps RMC is < 75% of SAR limit.

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

KDB 447498D01 General RF Exposure Guidance v05r02

Stand-alone and simultaneous SAR evaluation for a cell phone with multiple transmitters is base on the antennas distance of each radio.

BT, WiFi, GSM and 3G Antenna Location:



Antenna Information:

Description of Simultaneous Transmit Capabilities			Antennas Distance (mm)
Transmitter Combination	Simultaneous?	Hotspot?	
GSM + GPRS	×	×	0
GSM + WCDMA	×	×	0
GSM + Bluetooth	√	×	30
GSM + WiFi	√	√	30
GPRS + WCDMA	×	×	0
GPRS + Bluetooth	√	×	0
GPRS + WiFi	√	√	30
WCDMA + Bluetooth	√	×	30
WCDMA + WiFI	√	√	30

Standalone SAR test exclusion considerations

Head Position:

Mode	Frequency (MHz)	P_{avg} (dBm)	P_{avg} (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
GSM850	850	23.91	246.04	0	45.37	3.0	No
PCS1900	1900	21.02	126.47	0	34.87	3.0	No
WCDMSA850	850	22.66	184.50	0	34.02	3.0	No
WCDMSA1900	1900	22.09	161.81	0	44.61	3.0	No
WiFi	2450	9.49	8.89	0	2.78	3.0	Yes
Bluetooth	2450	6.86	4.85	0	1.52	3.0	Yes

Body Position:

Mode	Frequency (MHz)	P_{avg} (dBm)	P_{avg} (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
GPRS850	850	26.33	429.54	10.00	39.60	3.0	No
GPRS1900	1900	23.25	211.35	10.00	29.13	3.0	No
WCDMSA850	850	22.66	184.50	10.00	17.01	3.0	No
WCDMSA1900	1900	22.09	161.81	10.00	22.30	3.0	No
WiFi	2450	9.49	8.89	10.00	1.39	3.0	Yes
Bluetooth	2450	6.86	4.85	10.00	0.76	3.0	Yes

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:
[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

1. f(GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Simultaneous SAR test exclusion considerations:

GSM with BT:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		GSM	BT	< 1.6W/kg
GSM850	Left Head Cheek	0.524	0.202	0.726
	Left Head Tile	0.298	0.202	0.500
	Right Head Cheek	0.496	0.202	0.698
	Right Head Tilt	0.264	0.202	0.466
	Body–Headset-Front	0.203	0.101	0.304
	Body–Headset-Back	0.477	0.101	0.578
PCS1900	Left Head Cheek	0.896	0.202	1.098
	Left Head Tile	0.398	0.202	0.600
	Right Head Cheek	0.909	0.202	1.111
	Right Head Tilt	0.418	0.202	0.620
	Body–Headset-Front	0.633	0.101	0.734
	Body–Headset-Back	0.659	0.101	0.760

WCDMA with BT:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		WCDMA	BT	< 1.6W/kg
WCDMA 850	Left Head Cheek	0.165	0.202	0.367
	Left Head Tile	0.138	0.202	0.340
	Right Head Cheek	0.157	0.202	0.359
	Right Head Tilt	0.146	0.202	0.348
	Body–Headset-Front	0.103	0.101	0.204
	Body–Headset-Back	0.284	0.101	0.385
WCDMA 1900	Left Head Cheek	0.655	0.202	0.857
	Left Head Tile	0.398	0.202	0.600
	Right Head Cheek	0.612	0.202	0.814
	Right Head Tilt	0.407	0.202	0.609
	Body–Headset-Front	0.400	0.101	0.501
	Body–Headset-Back	0.452	0.101	0.553

GSM with WiFi:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		GSM	WiFi	< 1.6W/kg
GSM850	Left Head Cheek	0.524	0.370	0.894
	Left Head Tile	0.298	0.370	0.668
	Right Head Cheek	0.496	0.370	0.866
	Right Head Tilt	0.264	0.370	0.634
	Body–Headset-Front	0.203	0.185	0.388
	Body–Headset-Back	0.477	0.185	0.662
PCS1900	Left Head Cheek	0.896	0.370	**1.266**
	Left Head Tile	0.398	0.370	0.768
	Right Head Cheek	0.909	0.370	1.279
	Right Head Tilt	0.418	0.370	0.788
	Body–Headset-Front	0.633	0.185	0.818
	Body–Headset-Back	0.659	0.185	0.844

WCDMA with WiFi:

Mode	Position	Reported SAR (W/kg)		ΣSAR
		WCDMA	WiFi	< 1.6W/kg
WCDMA 850	Left Head Cheek	0.165	0.370	0.535
	Left Head Tile	0.138	0.370	0.508
	Right Head Cheek	0.157	0.370	0.527
	Right Head Tilt	0.146	0.370	0.516
	Body–Headset-Front	0.103	0.185	0.288
	Body–Headset-Back	0.284	0.185	0.469
WCDMA 1900	Left Head Cheek	0.655	0.370	1.025
	Left Head Tile	0.398	0.370	0.768
	Right Head Cheek	0.612	0.370	0.982
	Right Head Tilt	0.407	0.370	0.777
	Body–Headset-Front	0.400	0.185	0.585
	Body–Headset-Back	0.452	0.185	0.637

Mode	Frequency (GHz)	Distance (mm)	P_{avg} (dBm)	P_{avg} (mW)	Estimated $_{1-g}$ (W/kg)
BT Head	2.45	0	9.49	8.89	0.202
BT Body	2.45	10	6.86	4.85	0.101
Wifi Head	2.45	0	9.49	8.89	0.370
Wifi Body	2.45	10	6.86	4.85	0.185

Note:
When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
[(*max. power of channel, including* ***tune-up tolerance****, mW*)/(*min. test separation distance,mm*)]·[√f(GHz)/*x*] W/kg for *test separation distances* ≤ 50 mm;
where *x* = 7.5 for 1-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion

Conclusion:
ΣSAR < 1.6 W/kg therefore simultaneous transmission SAR with Volume Scans is **not** required.

Hotspot:

Evaluations for Simultaneous SAR, Mobile Hot Spot Positions						
Test Position	Body-Front (1.0cm)	Body-Back (1.0cm)	Body-Left (1.0cm)	Body-Right (1.0cm)	Body-Bottom (1.0cm)	Body-Top (1.0cm)
Mode	Stand Alone 1-g SAR (W/Kg)					
GPRS 850	0.382	0.951	0.446	/	/	0.490
GPRS 1900	1.266	1.349	0.369	/	/	0.918
WCDMA850	0.103	0.284	0.091	/	/	0.129
WCDMA 1900	0.400	0.452	0.120	/	/	0.196
WiFi	0.185	0.185	/	0.185	/	0.185
	∑ 1-g SAR(W/Kg)					
GPRS850 + WiFi	0.567	1.136	/	/	/	0.675
GPRS1900 + WiFi	1.451	1.534	/	/	/	1.103
WCDMA850 + WiFi	0.288	0.469	/	/	/	0.314
WCDMA 1900 + WiFi	0.585	0.637	/	/	/	0.381

Note:
If the sum of the 1g SAR measured for the simultaneously transmitting antennas is less than the SAR limit, SAR measurement for simultaneous transmission is not required.

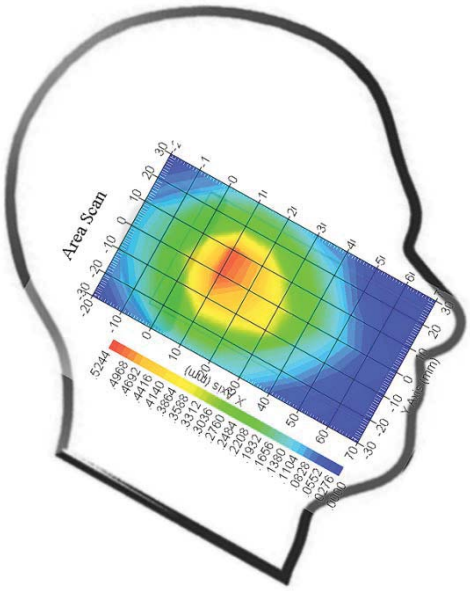
EUT SCAN RESULTS

Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek (824.2 MHz Low Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.295 W/kg
Power Drift-Finish	: 0.301 W/kg
Power Drift (%)	: 2.102
Tissue Data	
Type	: Head
Frequency	: 824.2 MHz
Epsilon	: 41.03 F/m
Sigma	: 0.90 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.491 W/kg
10 gram SAR value	: 0.269 W/kg
Area Scan Peak SAR	: 0.523 W/kg
Zoom Scan Peak SAR	: 0.798 W/kg

Plot 1#

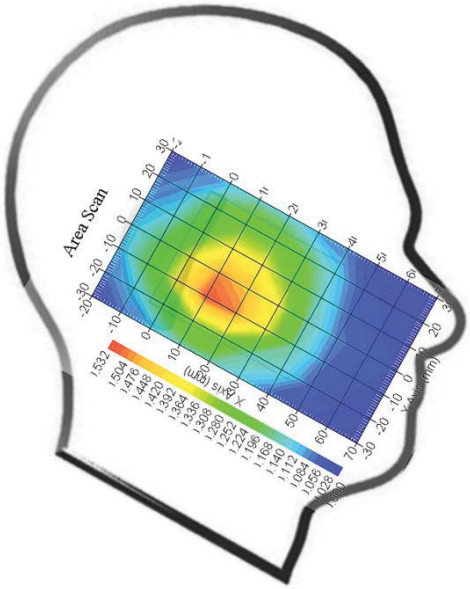


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek (836.6 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.352 W/kg
Power Drift-Finish	: 0.349 W/kg
Power Drift (%)	: -0.728
Tissue Data	
Type	: Head
Frequency	: 836.6 MHz
Epsilon	: 41.02 F/m
Sigma	: 0.92 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.502 W/kg
10 gram SAR value	: 0.284 W/kg
Area Scan Peak SAR	: 0.529 W/kg
Zoom Scan Peak SAR	: 0.850 W/kg

Plot 2#

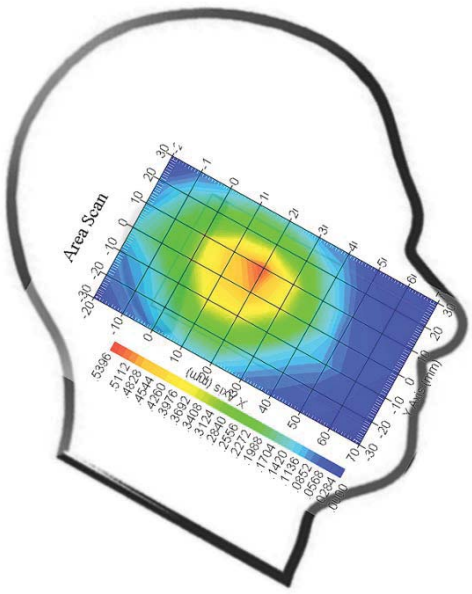


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek (848.8 MHz High Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.401 W/kg
Power Drift-Finish	: 0.392 W/kg
Power Drift (%)	: -2.247
Tissue Data	
Type	: Head
Frequency	: 848.8 MHz
Epsilon	: 41.01 F/m
Sigma	: 0.92 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.513 W/kg
10 gram SAR value	: 0.292 W/kg
Area Scan Peak SAR	: 0.538 W/kg
Zoom Scan Peak SAR	: 0.903 W/kg

Plot 3#

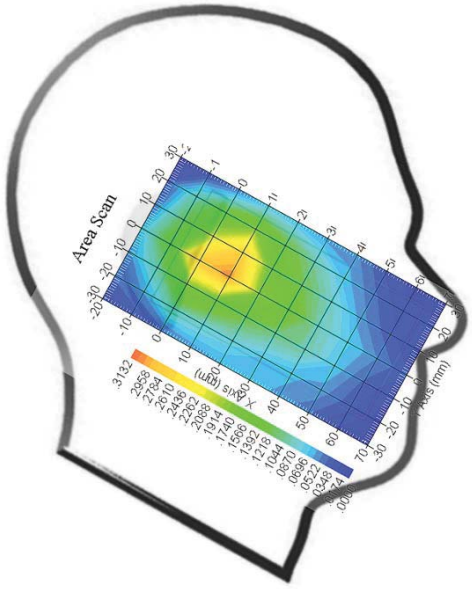


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Tilt (836.6 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.198 W/kg
Power Drift-Finish	: 0.203 W/kg
Power Drift (%)	: 2.574
Tissue Data	
Type	: Head
Frequency	: 836.6 MHz
Epsilon	: 41.02 F/m
Sigma	: 0.92 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.286 W/kg
10 gram SAR value	: 0.160 W/kg
Area Scan Peak SAR	: 0.313 W/kg
Zoom Scan Peak SAR	: 0.498 W/kg

Plot 4#

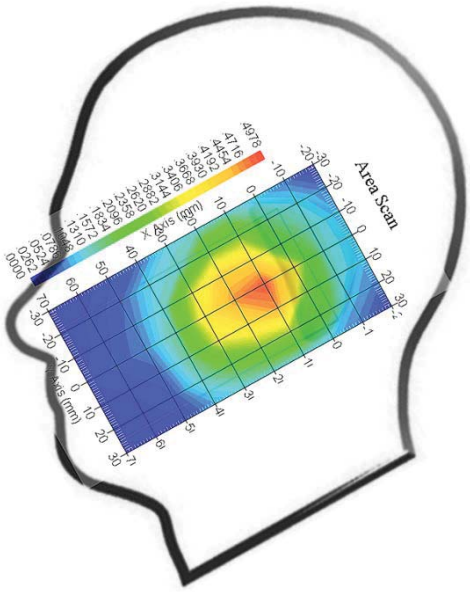


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Cheek (836.6 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.363 W/kg
Power Drift-Finish	: 0.359 W/kg
Power Drift (%)	: -1.298
Tissue Data	
Type	: Head
Frequency	: 836.6 MHz
Epsilon	: 41.02 F/m
Sigma	: 0.92 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.476 W/kg
10 gram SAR value	: 0.255 W/kg
Area Scan Peak SAR	: 0.497 W/kg
Zoom Scan Peak SAR	: 0.734 W/kg

Plot 5#

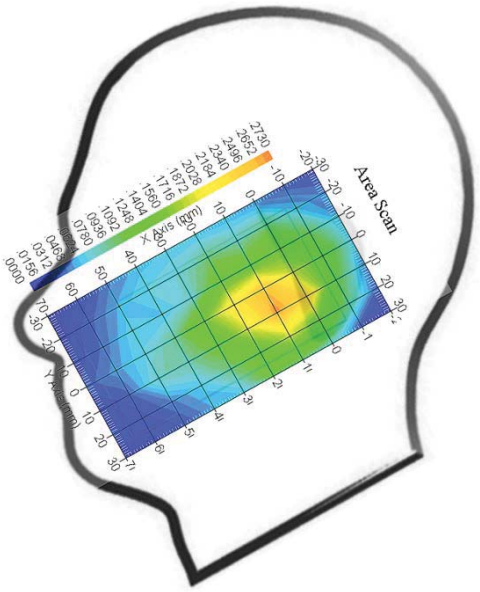


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Tilt (836.6 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.155 W/kg
Power Drift-Finish	: 0.161 W/kg
Power Drift (%)	: 3.312
Tissue Data	
Type	: Head
Frequency	: 836.6 MHz
Epsilon	: 41.02 F/m
Sigma	: 0.92 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.253 W/kg
10 gram SAR value	: 0.144 W/kg
Area Scan Peak SAR	: 0.271 W/kg
Zoom Scan Peak SAR	: 0.517 W/kg

Plot 6#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn Front-Headset (836.6 MHz Middle Channel)

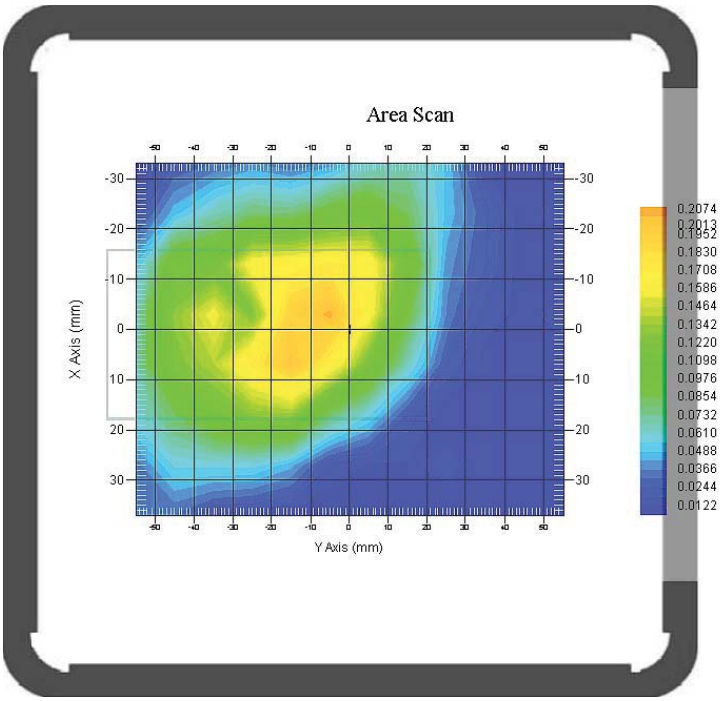
Measurement Data
Test mode : GSM
Crest Factor : 8
Scan Type： : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.162 W/kg
Power Drift-Finish : 0.159 W/kg
Power Drift (%) : -1.789

Tissue Data
Type : Body
Frequency : 836.6 MHz
Epsilon : 53.86 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 8
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.195 W/kg
10 gram SAR value : 0.124 W/kg
Area Scan Peak SAR : 0.207 W/kg
Zoom Scan Peak SAR : 0.507 W/kg

Plot 7#

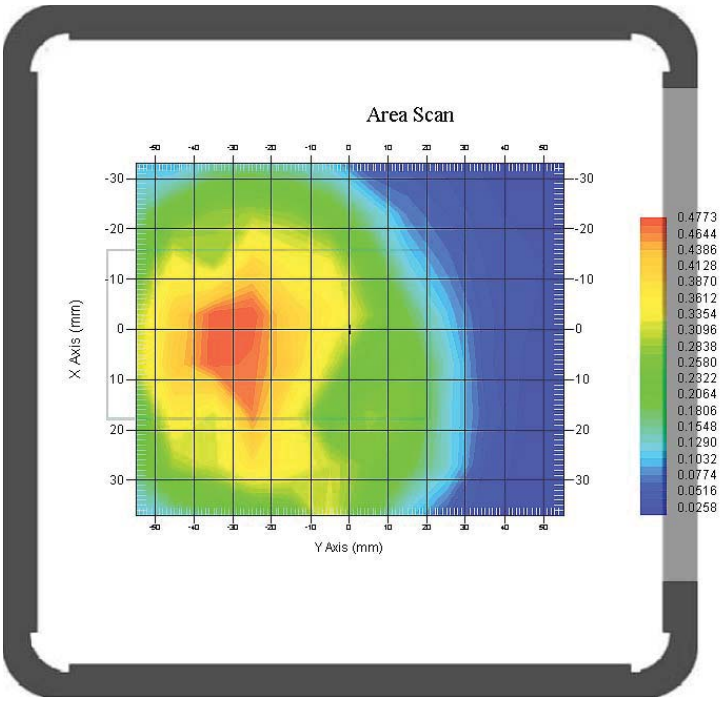


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn Back-Headset (836.6 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type：	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.235 W/kg
Power Drift-Finish	: 0.237 W/kg
Power Drift (%)	: 0.852
Tissue Data	
Type	: Body
Frequency	: 836.6 MHz
Epsilon	: 53.86 F/m
Sigma	: 0.96 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 8
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 μV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.458 W/kg
10 gram SAR value	: 0.285 W/kg
Area Scan Peak SAR	: 0.476 W/kg
Zoom Scan Peak SAR	: 0.845 W/kg

Plot 8#

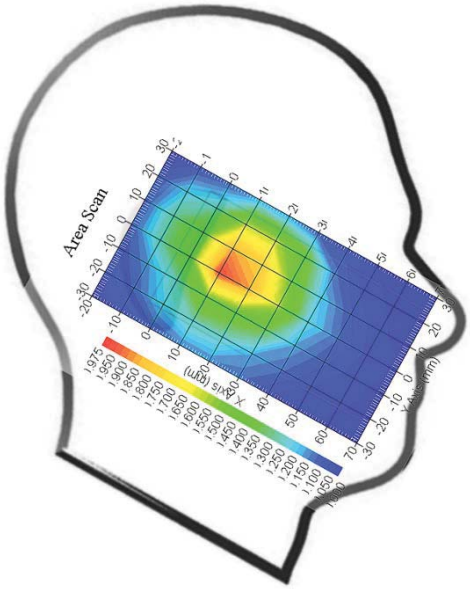


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek (1850.2 MHz Low Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.558 W/kg
Power Drift-Finish	: 0.563 W/kg
Power Drift (%)	: 0.884
Tissue Data	
Type	: Head
Frequency	: 1850.2 MHz
Epsilon	: 39.69 F/m
Sigma	: 1.37 S/m
Density	: 1000.00 kg/cu. M
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.859 W/kg
10 gram SAR value	: 0.452 W/kg
Area Scan Peak SAR	: 0.971 W/kg
Zoom Scan Peak SAR	: 1.359 W/kg

Plot 9#

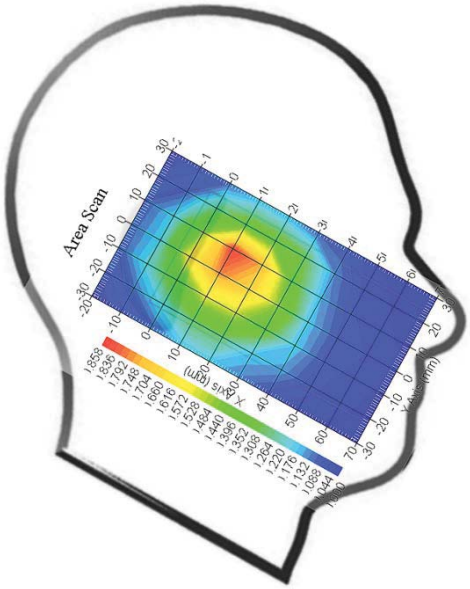


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Cheek(1880 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.495 W/kg
Power Drift-Finish	: 0.490 W/kg
Power Drift (%)	: -1.109
Tissue Data	
Type	: Head
Frequency	: 1880 MHz
Epsilon	: 39.56 F/m
Sigma	: 1.40 S/m
Density	: 1000.00 kg/cu. M
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.785 W/kg
10 gram SAR value	: 0.398 W/kg
Area Scan Peak SAR	: 0.849 W/kg
Zoom Scan Peak SAR	: 1.198 W/kg

Plot 10#

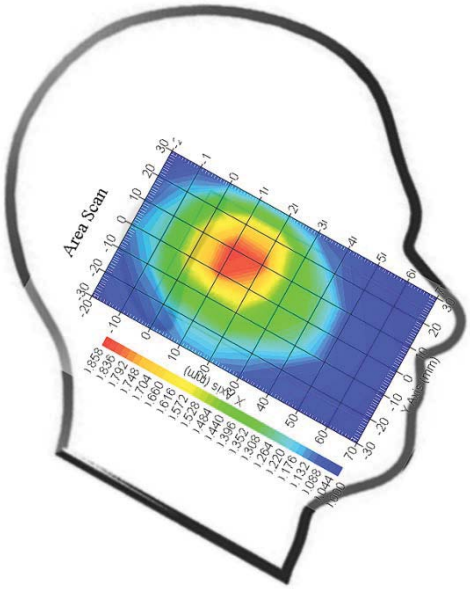


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Cheek (1909.8 MHz High Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.602 W/kg
Power Drift-Finish	: 0.591 W/kg
Power Drift (%)	: -1.869
Tissue Data	
Type	: Head
Frequency	: 1909.8 MHz
Epsilon	: 39.61 F/m
Sigma	: 1.42 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.812 W/kg
10 gram SAR value	: 0.422 W/kg
Area Scan Peak SAR	: 0.855 W/kg
Zoom Scan Peak SAR	: 1.276 W/kg

Plot 11#

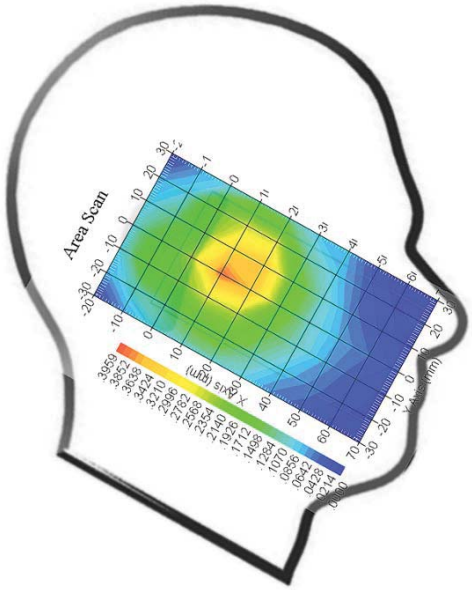


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Left Head Tilt(1880 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.296 W/kg
Power Drift-Finish	: 0.302 W/kg
Power Drift (%)	:2.079
Tissue Data	
Type	: Head
Frequency	: 1880 MHz
Epsilon	: 39.56 F/m
Sigma	: 1.40 S/m
Density	: 1000.00 kg/cu. M
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.372 W/kg
10 gram SAR value	: 0.203 W/kg
Area Scan Peak SAR	: 0.396 W/kg
Zoom Scan Peak SAR	: 0.559 W/kg

Plot 12#

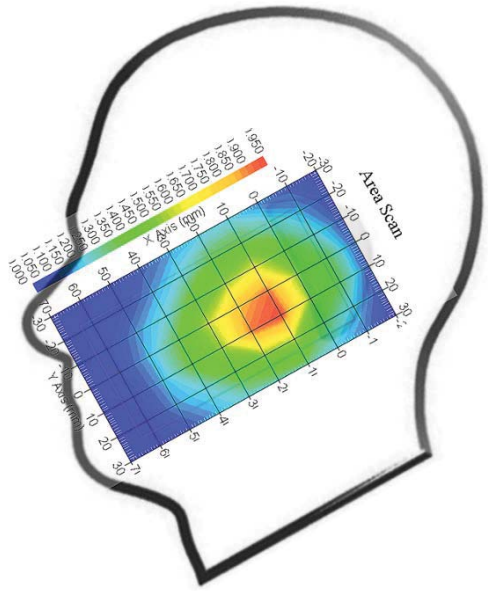


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Cheek (1850.2 MHz Low Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.575 W/kg
Power Drift-Finish	: 0.580 W/kg
Power Drift (%)	: 0.829
Tissue Data	
Type	: Head
Frequency	: 1850.2 MHz
Epsilon	: 39.69 F/m
Sigma	: 1.37 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.872 W/kg
10 gram SAR value	: 0.456 W/kg
Area Scan Peak SAR	: 0.945 W/kg
Zoom Scan Peak SAR	: 1.314 W/kg

Plot 13#

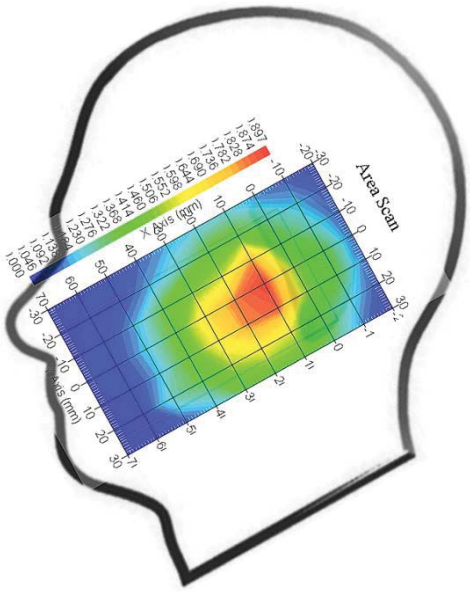


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Cheek (1880 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.539 W/kg
Power Drift-Finish	: 0.532 W/kg
Power Drift (%)	: -1.287
Tissue Data	
Type	: Head
Frequency	: 1880 MHz
Epsilon	: 39.56 F/m
Sigma	: 1.40 S/m
Density	: 1000.00 kg/cu. M
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.835 W/kg
10 gram SAR value	: 0.429 W/kg
Area Scan Peak SAR	: 0.891 W/kg
Zoom Scan Peak SAR	: 1.330 W/kg

Plot 14#

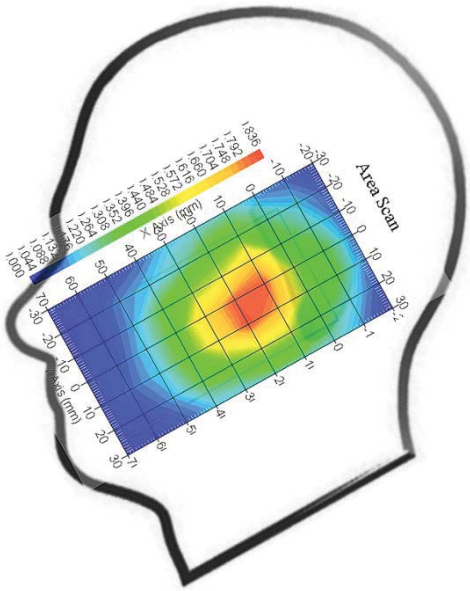


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Cheek (1909.8 MHz High Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.529 W/kg
Power Drift-Finish	: 0.526 W/kg
Power Drift (%)	: -0.573
Tissue Data	
Type	: Head
Frequency	: 1909.8 MHz
Epsilon	: 39.61 F/m
Sigma	: 1.42 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.802 W/kg
10 gram SAR value	: 0.416 W/kg
Area Scan Peak SAR	: 0.829 W/kg
Zoom Scan Peak SAR	: 1.428 W/kg

Plot 15#

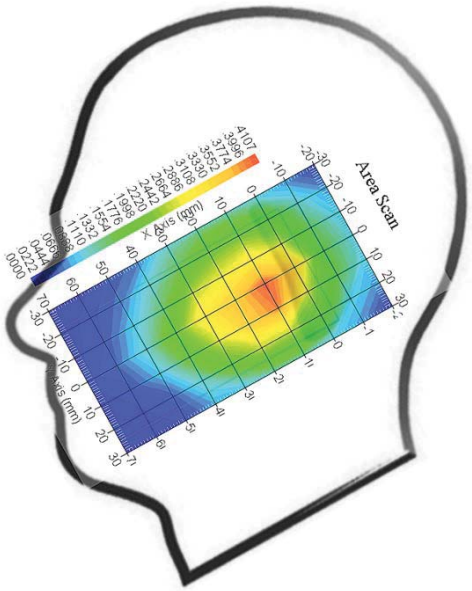


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Right Head Tilt (1880 MHz Middle Channel)

Measurement Data	
Test mode	: GSM
Crest Factor	: 8
Scan Type	: Complete
Area Scan	: 11x8x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.332 W/kg
Power Drift-Finish	: 0.329 W/kg
Power Drift (%)	: -1.518
Tissue Data	
Type	: Head
Frequency	: 1880 MHz
Epsilon	: 39.56 F/m
Sigma	: 1.40 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 8
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.391 W/kg
10 gram SAR value	: 0.228 W/kg
Area Scan Peak SAR	: 0.409 W/kg
Zoom Scan Peak SAR	: 0.697 W/kg

Plot 16#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn Front-Headset (1880 MHz Middle Channel)

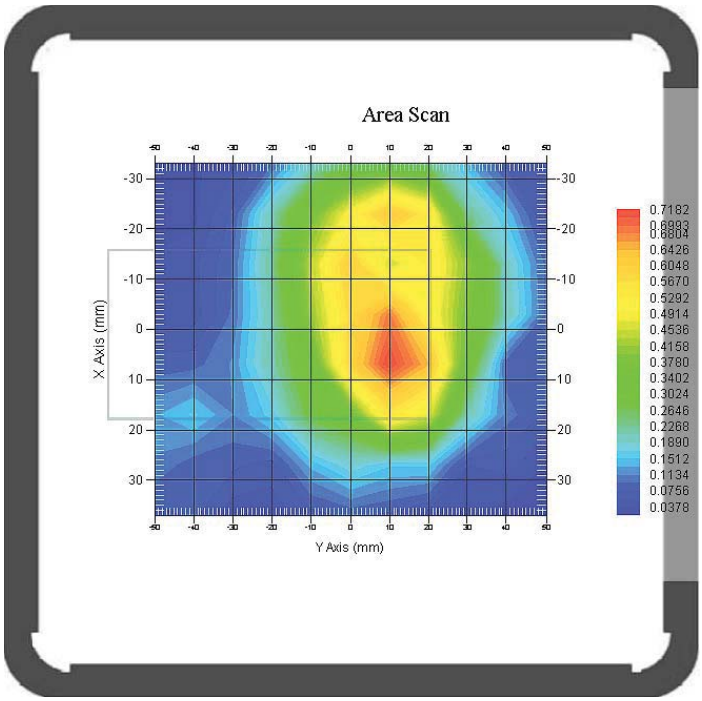
Measurement Data
Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.235 W/kg
Power Drift-Finish : 0.237 W/kg
Power Drift (%) : 0.698

Tissue Data
Type : Body
Frequency : 1880 MHz
Epsilon : 51.89 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.592 W/kg
10 gram SAR value : 0.347 W/kg
Area Scan Peak SAR : 0.718 W/kg
Zoom Scan Peak SAR : 1.012 W/kg

Plot 17#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn Back- Headset (1880 MHz Middle Channel)

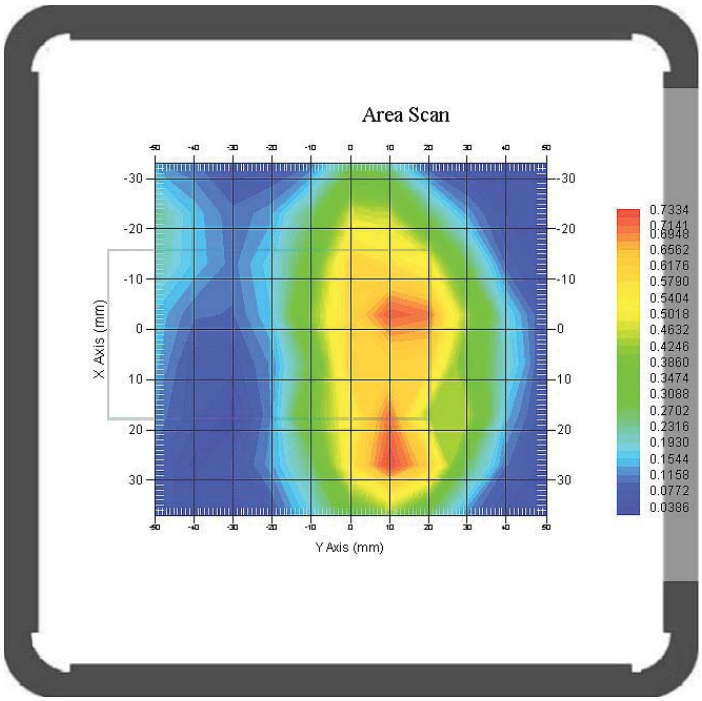
Measurement Data
Test mode : GSM
Crest Factor : 8
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.286 W/kg
Power Drift-Finish : 0.280 W/kg
Power Drift (%) : -2.331

Tissue Data
Type : Body
Frequency : 1880 MHz
Epsilon : 51.89 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 8
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.616 W/kg
10 gram SAR value : 0.352 W/kg
Area Scan Peak SAR : 0.732 W/kg
Zoom Scan Peak SAR : 1.141 W/kg

Plot 18#

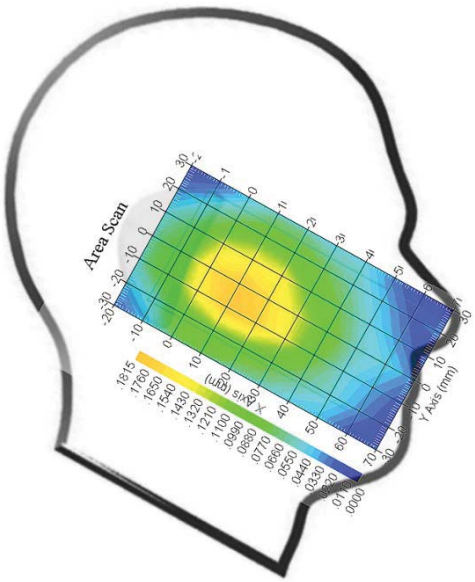


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Left Head Cheek (826.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA850
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.102 W/kg
Power Drift-Finish	: 0.102 W/kg
Power Drift (%)	: -0.245
Tissue Data	
Type	: Head
Frequency	: 826.4 MHz
Epsilon	: 41.05 F/m
Sigma	: 0.91 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 1
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.153 W/kg
10 gram SAR value	: 0.102 W/kg
Area Scan Peak SAR	: 0.180 W/kg
Zoom Scan Peak SAR	: 0.304 W/kg

Plot 19#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Left Head Tilt (826.4 MHz Low Channel)

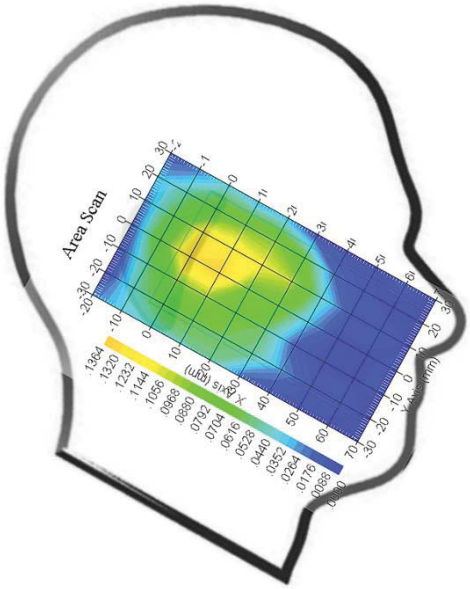
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.095 W/kg
Power Drift-Finish : 0.094 W/kg
Power Drift (%) : -1.132

Tissue Data
Type : Head
Frequency : 826.4 MHz
Epsilon : 41.05 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.128 W/kg
10 gram SAR value : 0.089 W/kg
Area Scan Peak SAR : 0.135 W/kg
Zoom Scan Peak SAR : 0.219 W/kg

Plot 20#

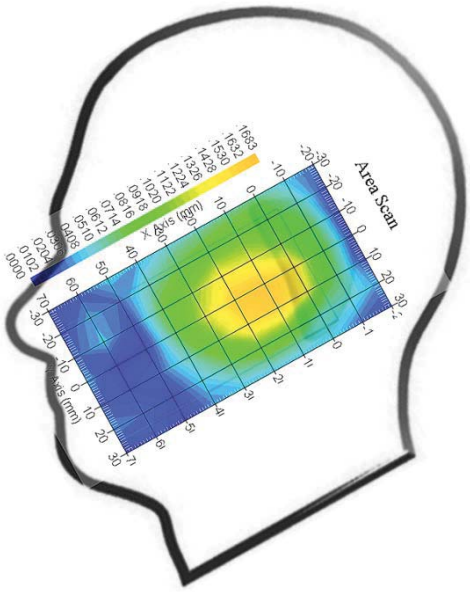


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Right Head Cheek (826.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA850
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.123 W/kg
Power Drift-Finish	: 0.119 W/kg
Power Drift (%)	: -3.598
Tissue Data	
Type	: Head
Frequency	: 826.4 MHz
Epsilon	: 41.05 F/m
Sigma	: 0.91 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 1
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.145 W/kg
10 gram SAR value	: 0.098 W/kg
Area Scan Peak SAR	: 0.168 W/kg
Zoom Scan Peak SAR	: 0.293 W/kg

Plot 21#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Right Head Tilt (826.4 MHz Low Channel)

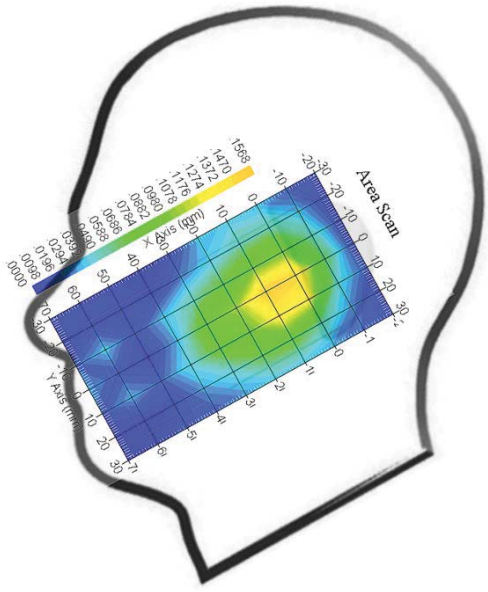
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.102 W/kg
Power Drift-Finish : 0.104 W/kg
Power Drift (%) : 1.957

Tissue Data
Type : Head
Frequency : 826.4 MHz
Epsilon : 41.05 F/m
Sigma : 0.91 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.135 W/kg
10 gram SAR value : 0.091 W/kg
Area Scan Peak SAR : 0.157 W/kg
Zoom Scan Peak SAR : 0.255 W/kg

Plot 22#

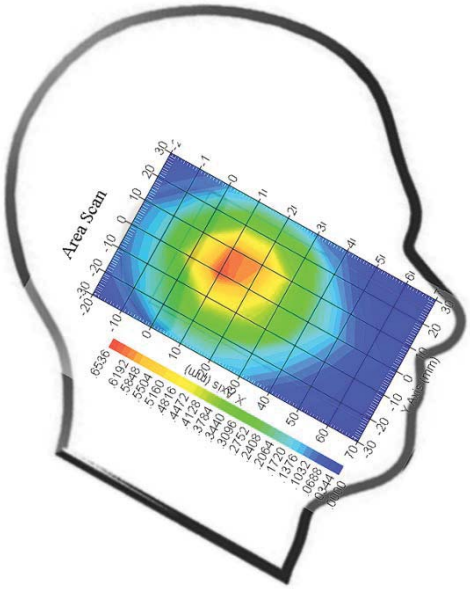


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Left Head Cheek (1852.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA1900
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.455 W/kg
Power Drift-Finish	: 0.462 W/kg
Power Drift (%)	: 1.639
Tissue Data	
Type	: Head
Frequency	: 1852.4 MHz
Epsilon	: 39.63 F/m
Sigma	: 1.38 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 1
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.596 W/kg
10 gram SAR value	: 0.371 W/kg
Area Scan Peak SAR	: 0.652 W/kg
Zoom Scan Peak SAR	: 0.958 W/kg

Plot 23#

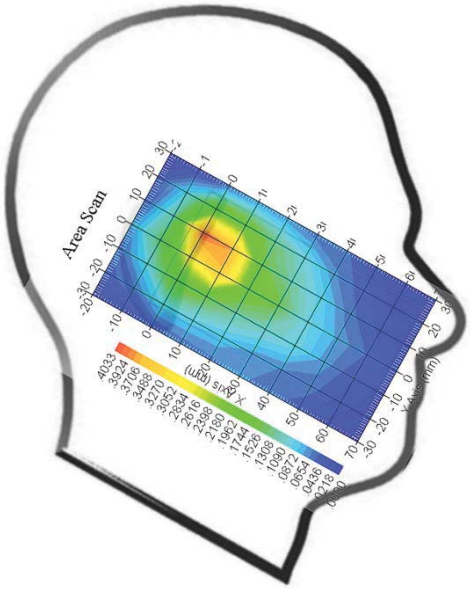


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Left Head Tilt (1852.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA1900
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.302 W/kg
Power Drift-Finish	: 0.298 W/kg
Power Drift (%)	: -1.375
Tissue Data	
Type	: Head
Frequency	: 1852.4 MHz
Epsilon	: 39.63 F/m
Sigma	: 1.38 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 1
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.362 W/kg
10 gram SAR value	: 0.223 W/kg
Area Scan Peak SAR	: 0.403 W/kg
Zoom Scan Peak SAR	: 0.697 W/kg

Plot 24#

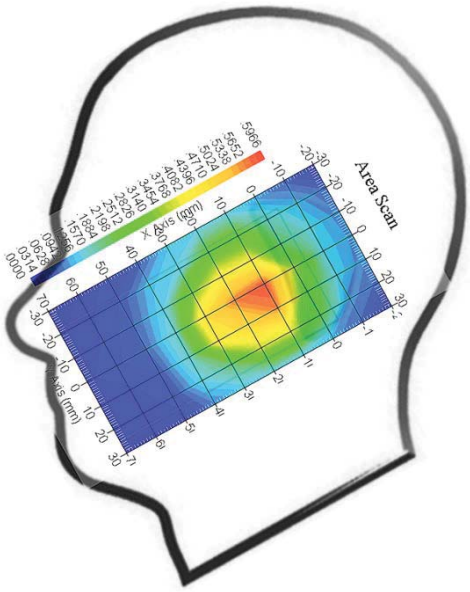


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Right Head Cheek (1852.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA1900
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.512 W/kg
Power Drift-Finish	: 0.507 W/kg
Power Drift (%)	: -0.897
Tissue Data	
Type	: Head
Frequency	: 1852.4 MHz
Epsilon	: 39.63 F/m
Sigma	: 1.38 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 1
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.557 W/kg
10 gram SAR value	: 0.312 W/kg
Area Scan Peak SAR	: 0.599 W/kg
Zoom Scan Peak SAR	: 0.841 W/kg

Plot 25#

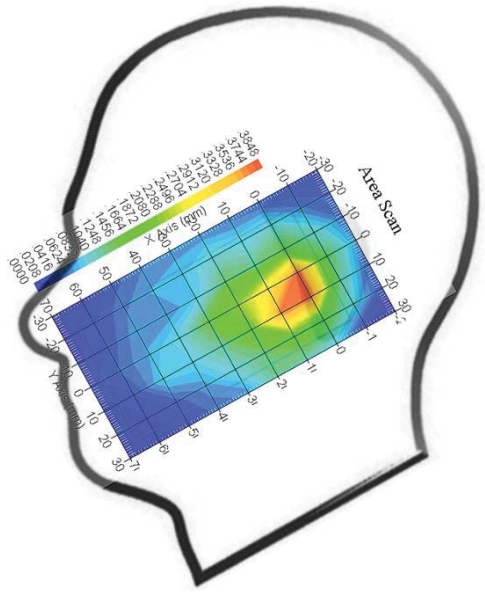


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Right Head Tilt (1852.4 MHz Low Channel)

Measurement Data	
Test mode	: WCDMA1900
Crest Factor	: 1
Scan Type	: Complete
Area Scan	: 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.239 W/kg
Power Drift-Finish	: 0.242 W/kg
Power Drift (%)	: 1.381
Tissue Data	
Type	: Head
Frequency	: 1852.4 MHz
Epsilon	: 39.63 F/m
Sigma	: 1.38 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 1
Conversion Factor	: 4.8
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.370 W/kg
10 gram SAR value	: 0.219 W/kg
Area Scan Peak SAR	: 0.385 W/kg
Zoom Scan Peak SAR	: 0.660 W/kg

Plot 26#

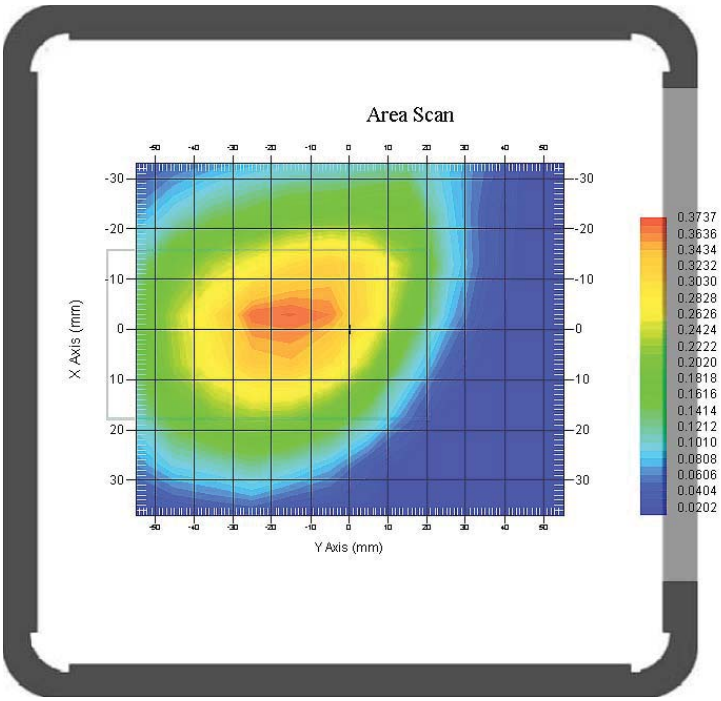


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Front (824.2 MHz Low Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type：	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.275 W/kg
Power Drift-Finish	: 0.281 W/kg
Power Drift (%)	: 2.377
Tissue Data	
Type	: Body
Frequency	: 824.2 MHz
Epsilon	: 53.86 F/m
Sigma	: 0.95 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 4
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 μV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.367 W/kg
10 gram SAR value	: 0.221 W/kg
Area Scan Peak SAR	: 0.374 W/kg
Zoom Scan Peak SAR	: 0.730 W/kg

Plot 27#

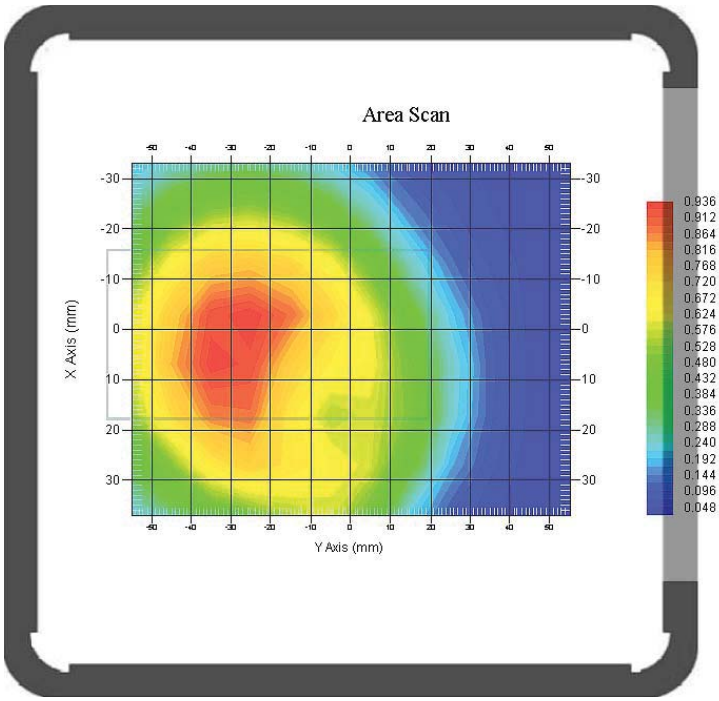


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (824.2 MHz Low Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type：	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.775 W/kg
Power Drift-Finish	: 0.786 W/kg
Power Drift (%)	: 1.628
Tissue Data	
Type	: Body
Frequency	: 824.2 MHz
Epsilon	: 53.86 F/m
Sigma	: 0.95 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 4
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 μV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.914 W/kg
10 gram SAR value	: 0.530 W/kg
Area Scan Peak SAR	: 0.933 W/kg
Zoom Scan Peak SAR	: 1.411 W/kg

Plot 28#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (836.6 MHz Middle Channel)

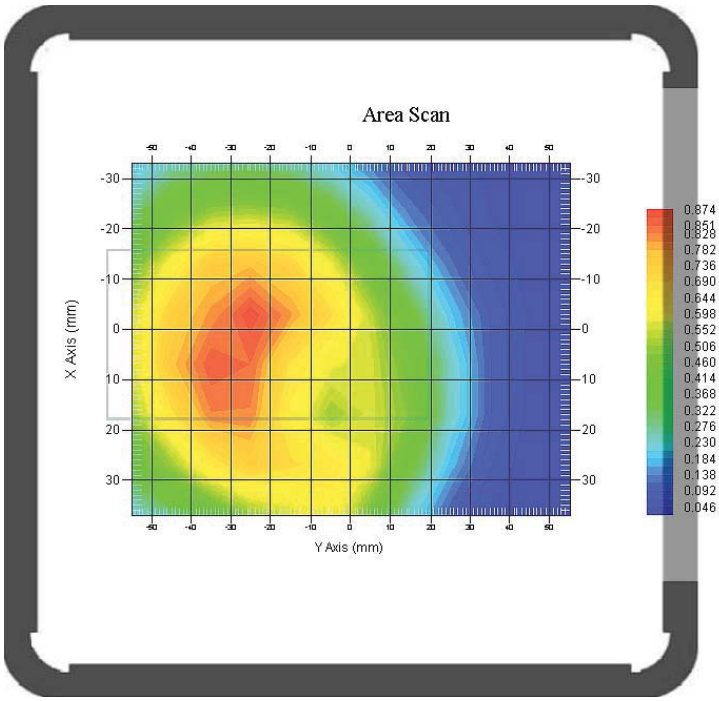
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type： : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.692 W/kg
Power Drift-Finish : 0.681 W/kg
Power Drift (%) : -1.736

Tissue Data
Type : Body
Frequency : 836.6 MHz
Epsilon : 53.84 F/m
Sigma : 0.96 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 4
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.842 W/kg
10 gram SAR value : 0.531 W/kg
Area Scan Peak SAR : 0.865 W/kg
Zoom Scan Peak SAR : 1.381 W/kg

Plot 29#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (848.8 MHz High Channel)

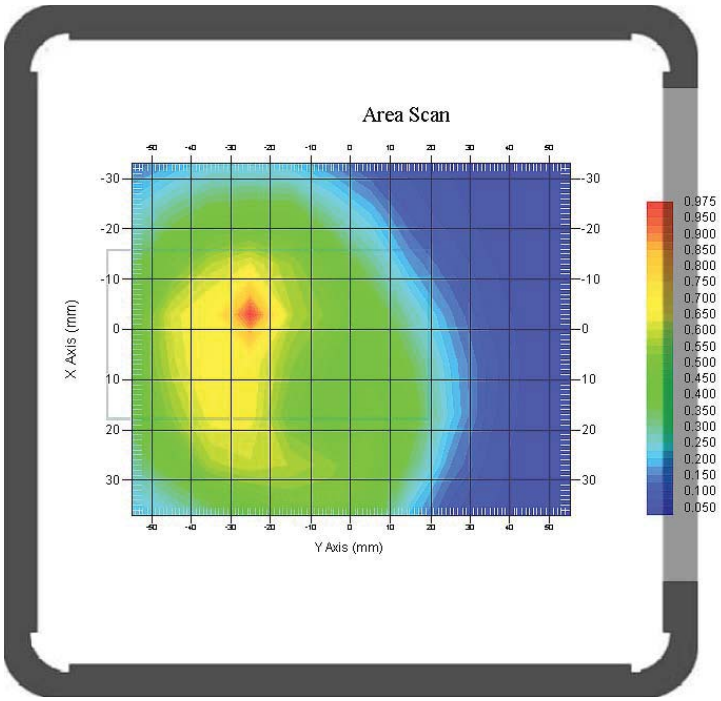
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type： : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.705 W/kg
Power Drift-Finish : 0.711 W/kg
Power Drift (%) : 0.799

Tissue Data
Type : Body
Frequency : 848.8 MHz
Epsilon : 53.83 F/m
Sigma : 0.98 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 4
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.752 W/kg
10 gram SAR value : 0.479 W/kg
Area Scan Peak SAR : 0.971 W/kg
Zoom Scan Peak SAR : 1.442 W/kg

Plot 30#

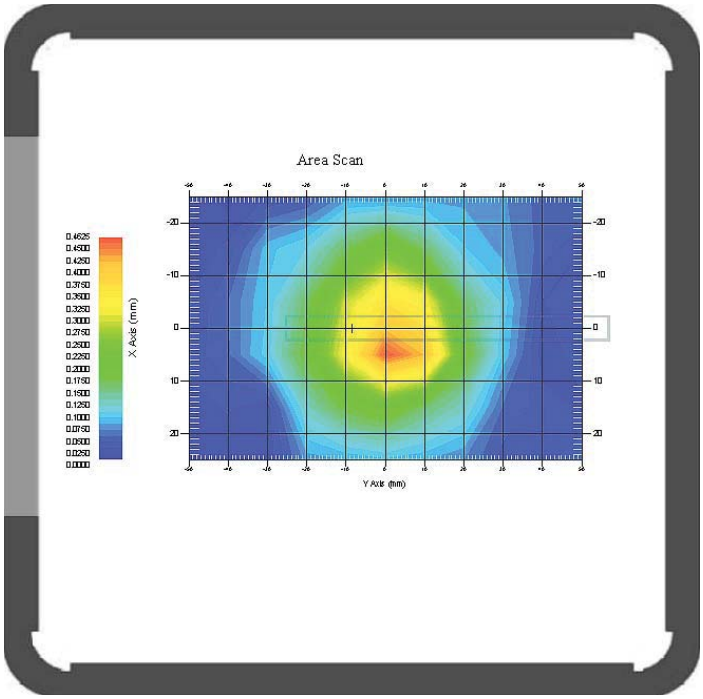


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Left (824.2 MHz Low Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type：	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.296 W/kg
Power Drift-Finish	: 0.302 W/kg
Power Drift (%)	: 2.103
Tissue Data	
Type	: Body
Frequency	: 824.2 MHz
Epsilon	: 53.86 F/m
Sigma	: 0.95 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 835
Duty Cycle Factor	: 4
Conversion Factor	: 5.9
Probe Sensitivity	: 1.20 1.20 1.20 μV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.448 W/kg
10 gram SAR value	: 0.219 W/kg
Area Scan Peak SAR	: 0.451 W/kg
Zoom Scan Peak SAR	: 0.679 W/kg

Plot 31#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Top (824.2 MHz Low Channel)

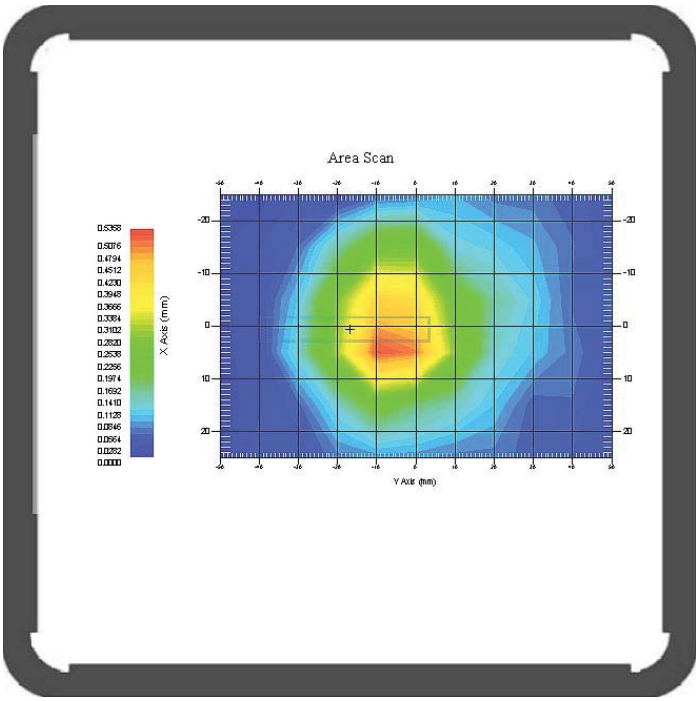
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type： : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.326 W/kg
Power Drift-Finish : 0.319 W/kg
Power Drift (%) : -2.581

Tissue Data
Type : Body
Frequency : 824.2 MHz
Epsilon : 53.86 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 4
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.471 W/kg
10 gram SAR value : 0.226 W/kg
Area Scan Peak SAR : 0.535 W/kg
Zoom Scan Peak SAR : 0.912 W/kg

Plot 32#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Front (1850.2 MHz Low Channel)

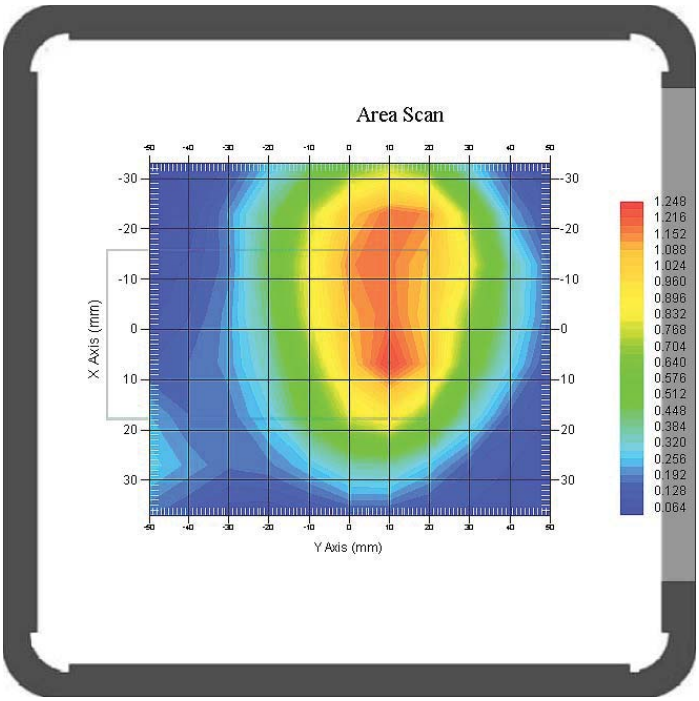
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.985 W/kg
Power Drift-Finish : 0.996 W/kg
Power Drift (%) : 1.179

Tissue Data
Type : Body
Frequency : 1850.2 MHz
Epsilon : 51.80 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.195 W/kg
10 gram SAR value : 0.618 W/kg
Area Scan Peak SAR : 1.239 W/kg
Zoom Scan Peak SAR : 1.915 W/kg

Plot 33#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Front (1880MHz Middle Channel)

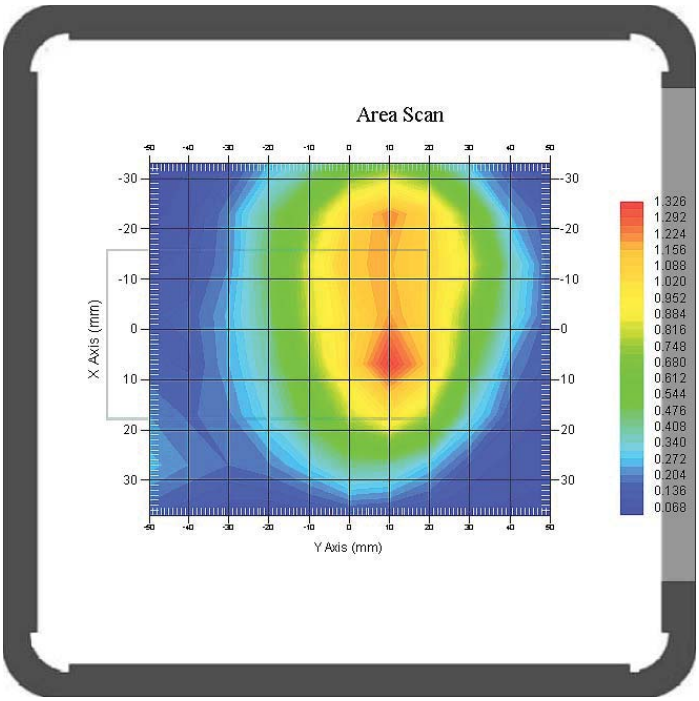
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.886 W/kg
Power Drift-Finish : 0.869 W/kg
Power Drift (%) : -1.859

Tissue Data
Type : Body
Frequency : 1880 MHz
Epsilon : 51.89 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.102 W/kg
10 gram SAR value : 0.597 W/kg
Area Scan Peak SAR : 1.321 W/kg
Zoom Scan Peak SAR : 2.013 W/kg

Plot 34#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Front (1909.8MHz High Channel)

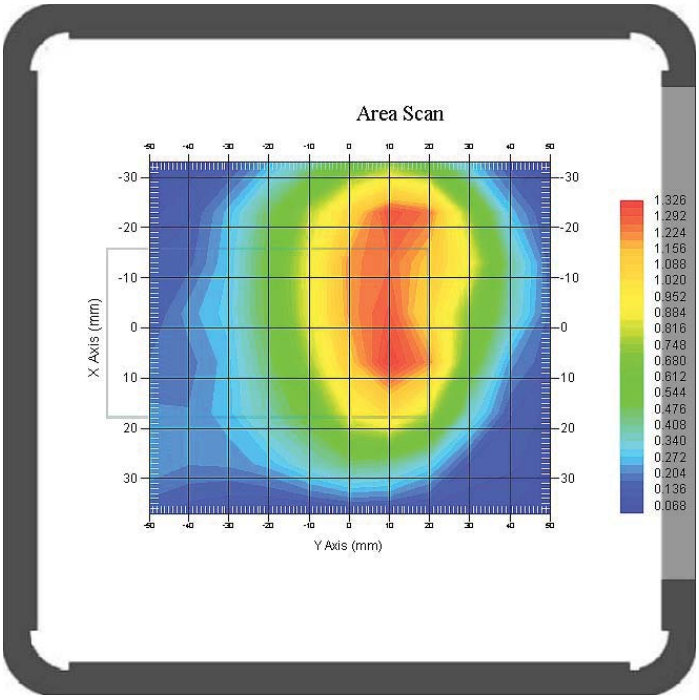
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.729 W/kg
Power Drift-Finish : 0.718 W/kg
Power Drift (%) : -1.485

Tissue Data
Type : Body
Frequency : 1909.8 MHz
Epsilon : 51.81 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.216 W/kg
10 gram SAR value : 0.640 W/kg
Area Scan Peak SAR : 1.321 W/kg
Zoom Scan Peak SAR : 2.181 W/kg

Plot 35#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (1850.2 MHz Low Channel)

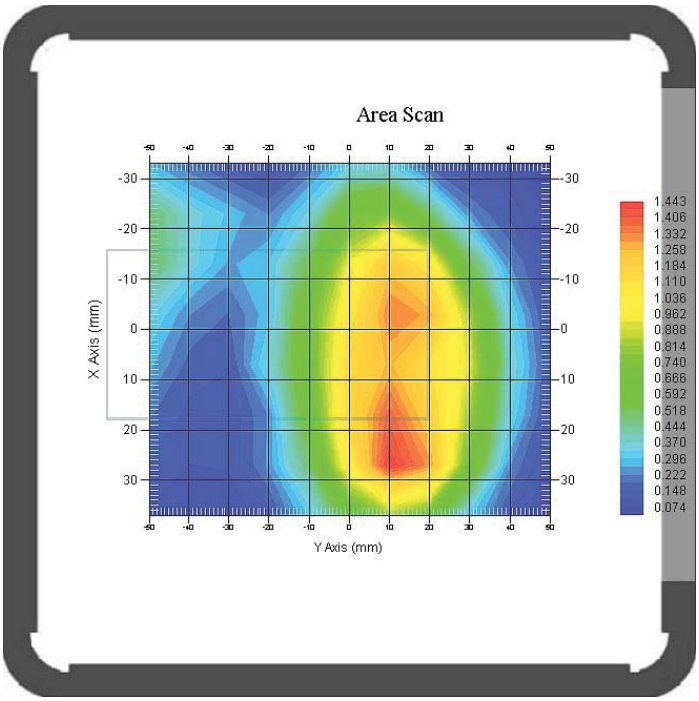
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 1.025 W/kg
Power Drift-Finish : 1.042 W/kg
Power Drift (%) : 1.628

Tissue Data
Type : Body
Frequency : 1850.2 MHz
Epsilon : 51.80 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.274 W/kg
10 gram SAR value : 0.658 W/kg
Area Scan Peak SAR : 1.440 W/kg
Zoom Scan Peak SAR : 2.305 W/kg

Plot 36#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (1880MHz Middle Channel)

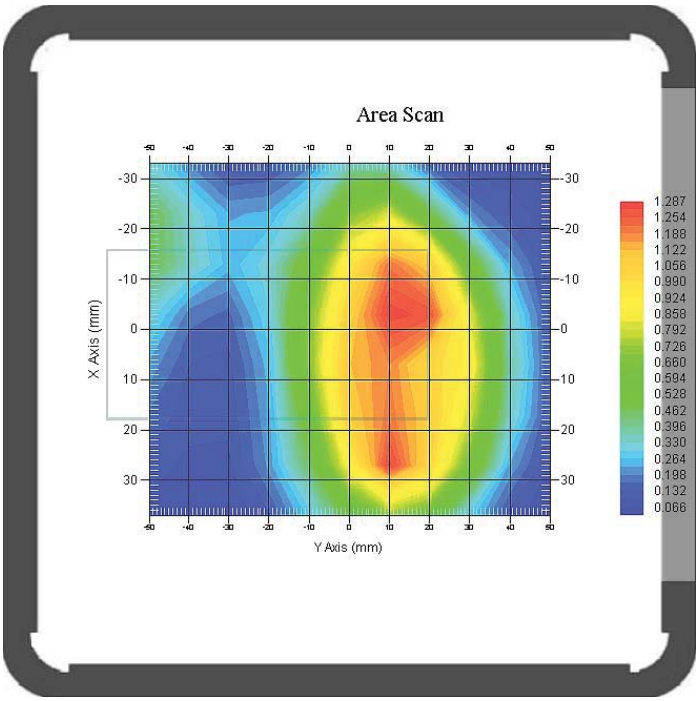
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.959 W/kg
Power Drift-Finish : 0.952 W/kg
Power Drift (%) : -0.757

Tissue Data
Type : Body
Frequency : 1880 MHz
Epsilon : 51.89 F/m
Sigma : 1.51 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 1.152 W/kg
10 gram SAR value : 0.604 W/kg
Area Scan Peak SAR : 1.279 W/kg
Zoom Scan Peak SAR : 2.415 W/kg

Plot 37#

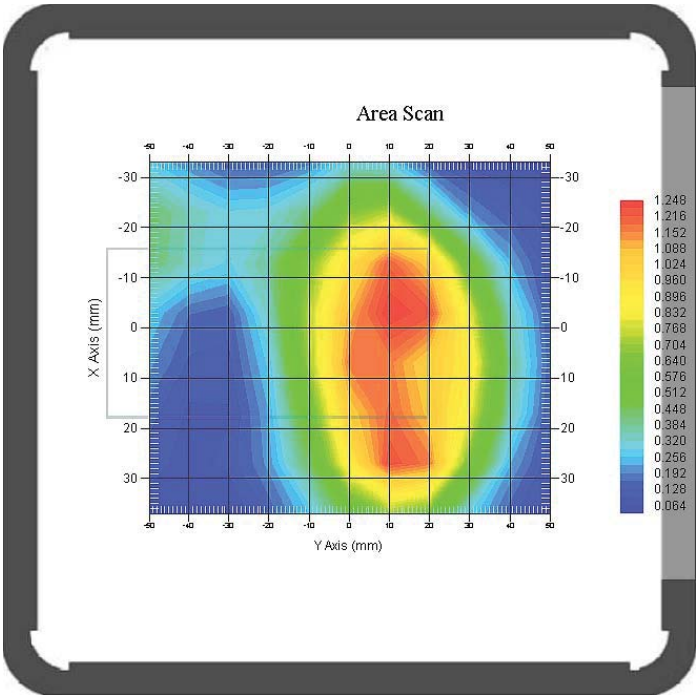


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Back (1909.8MHz High Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.859 W/kg
Power Drift-Finish	: 0.877 W/kg
Power Drift (%)	: 2.614
Tissue Data	
Type	: Body
Frequency	: 1909.8 MHz
Epsilon	: 51.81 F/m
Sigma	: 1.54 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 4
Conversion Factor	: 4.5
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 1.170 W/kg
10 gram SAR value	: 0.663 W/kg
Area Scan Peak SAR	: 1.237 W/kg
Zoom Scan Peak SAR	: 2.076 W/kg

Plot 38#

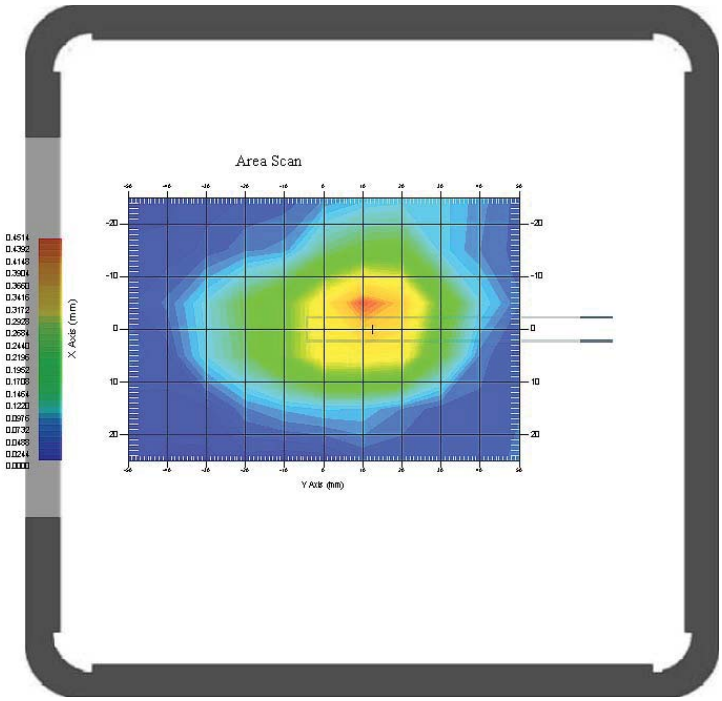


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Left (1850.2 MHz Low Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.298 W/kg
Power Drift-Finish	: 0.301 W/kg
Power Drift (%)	: 1.042
Tissue Data	
Type	: Body
Frequency	: 1850.2 MHz
Epsilon	: 51.80 F/m
Sigma	: 1.49 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 4
Conversion Factor	: 4.5
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.348 W/kg
10 gram SAR value	: 0.195 W/kg
Area Scan Peak SAR	: 0.452 W/kg
Zoom Scan Peak SAR	: 0.677 W/kg

Plot 39#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn-Top (1850.2 MHz Low Channel)

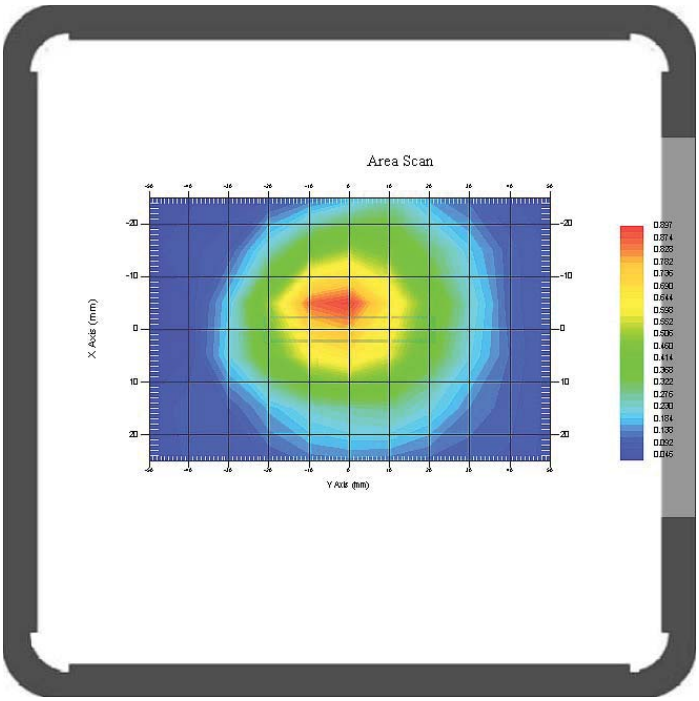
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.650 W/kg
Power Drift-Finish : 0.644 W/kg
Power Drift (%) : -0.847

Tissue Data
Type : Body
Frequency : 1850.2 MHz
Epsilon : 51.80 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.798 W/kg
10 gram SAR value : 0.429 W/kg
Area Scan Peak SAR : 0.891 W/kg
Zoom Scan Peak SAR : 1.367 W/kg

Plot 40#

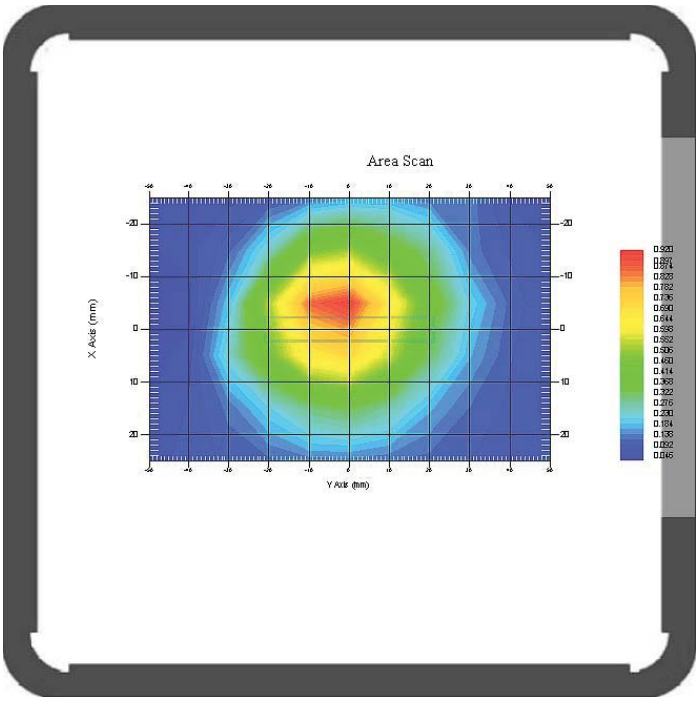


Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn- Top (1880MHz Middle Channel)

Measurement Data	
Test mode	: GPRS
Crest Factor	: 4
Scan Type	: Complete
Area Scan	: 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan	: 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start	: 0.612 W/kg
Power Drift-Finish	: 0.598 W/kg
Power Drift (%)	: -2.296
Tissue Data	
Type	: Body
Frequency	: 1880 MHz
Epsilon	: 51.89 F/m
Sigma	: 1.51 S/m
Density	: 1000.00 kg/cu. m
Probe Data	
Serial No.	: 500-00283
Frequency Band	: 1900
Duty Cycle Factor	: 4
Conversion Factor	: 4.5
Probe Sensitivity	: 1.20 1.20 1.20 µV/(V/m)2
Compression Point	: 95.00 mV
Offset	: 1.56 mm
1 gram SAR value	: 0.847 W/kg
10 gram SAR value	: 0.412 W/kg
Area Scan Peak SAR	: 0.915 W/kg
Zoom Scan Peak SAR	: 1.606 W/kg

Plot 41#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

Body-worn- Top (1909.8MHz High Channel)

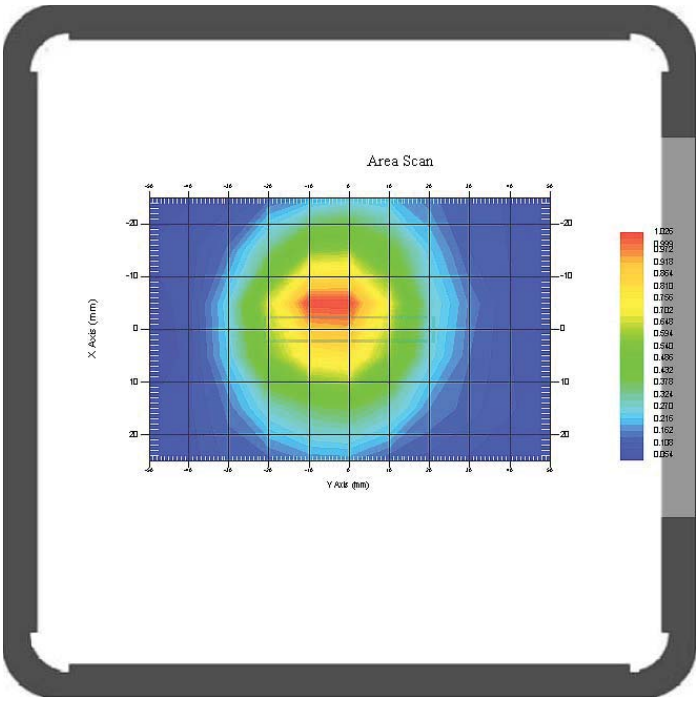
Measurement Data
Test mode : GPRS
Crest Factor : 4
Scan Type : Complete
Area Scan : 8x11x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7 : Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.715 W/kg
Power Drift-Finish : 0.726 W/kg
Power Drift (%) : 1.859

Tissue Data
Type : Body
Frequency : 1909.8 MHz
Epsilon : 51.81 F/m
Sigma : 1.54 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 4
Conversion Factor : 4.5
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.912 W/kg
10 gram SAR value : 0.497 W/kg
Area Scan Peak SAR : 1.019 W/kg
Zoom Scan Peak SAR : 1.673 W/kg

Plot 42#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Body-Worn-Front (826.4 MHz Low Channel)

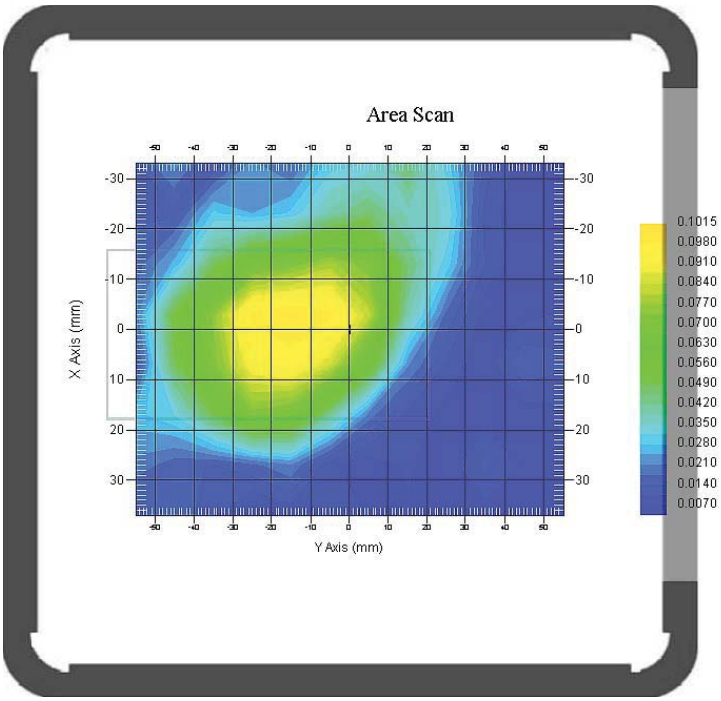
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.085 W/kg
Power Drift-Finish : 0.086 W/kg
Power Drift (%) : 1.257

Tissue Data
Type : Body
Frequency : 826.4 MHz
Epsilon : 53.82 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.095 W/kg
10 gram SAR value : 0.043 W/kg
Area Scan Peak SAR : 0.101 W/kg
Zoom Scan Peak SAR : 0.157 W/kg

Plot 43#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Body-Worn-Back (826.4 MHz Low Channel)

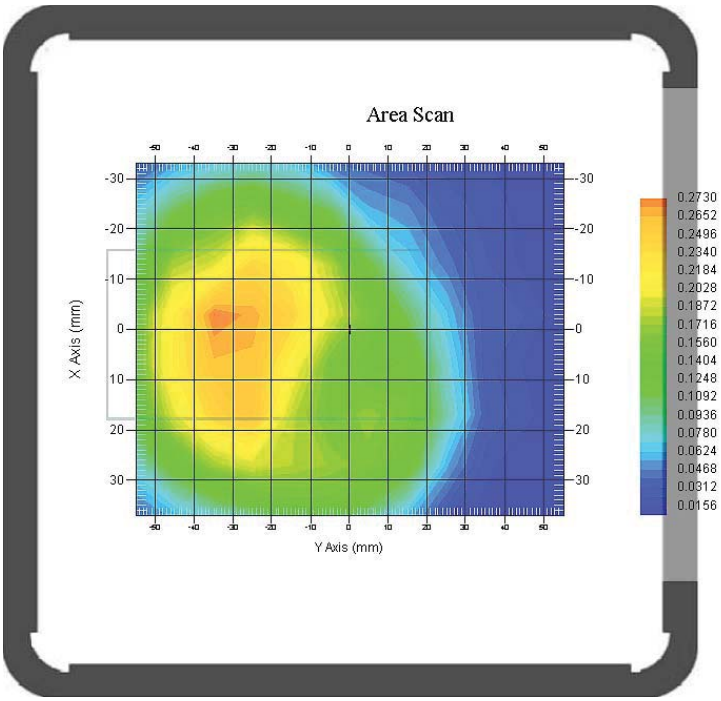
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.195 W/kg
Power Drift-Finish : 0.201 W/kg
Power Drift (%) : 3.197

Tissue Data
Type : Body
Frequency : 826.4 MHz
Epsilon : 53.82 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.263 W/kg
10 gram SAR value : 0.151 W/kg
Area Scan Peak SAR : 0.273 W/kg
Zoom Scan Peak SAR : 0.460 W/kg

Plot 44#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Body-Worn-Left (826.4 MHz Low Channel)

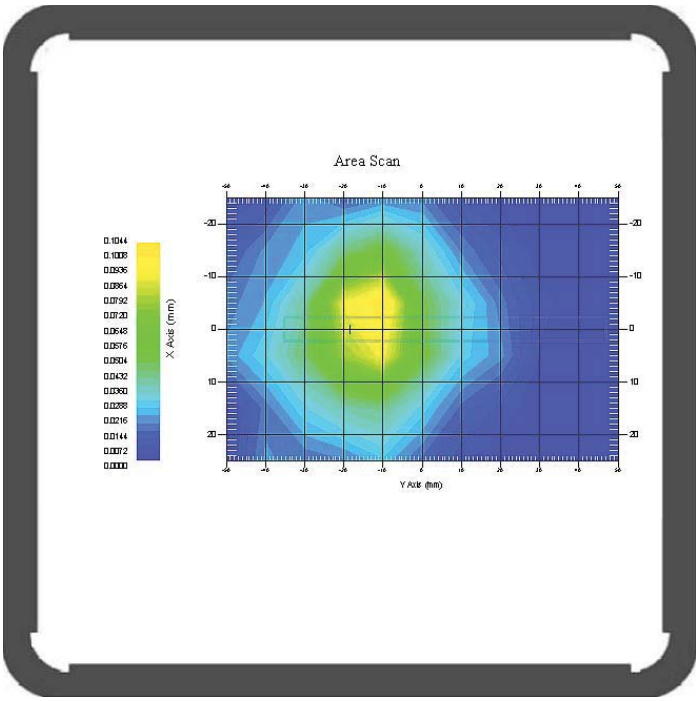
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.052 W/kg
Power Drift-Finish : 0.052 W/kg
Power Drift (%) : -0.314

Tissue Data
Type : Body
Frequency : 826.4 MHz
Epsilon : 53.82 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.084 W/kg
10 gram SAR value : 0.041 W/kg
Area Scan Peak SAR : 0.103 W/kg
Zoom Scan Peak SAR : 0.149 W/kg

Plot 45#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA850; Body-Worn-Top (826.4 MHz Low Channel)

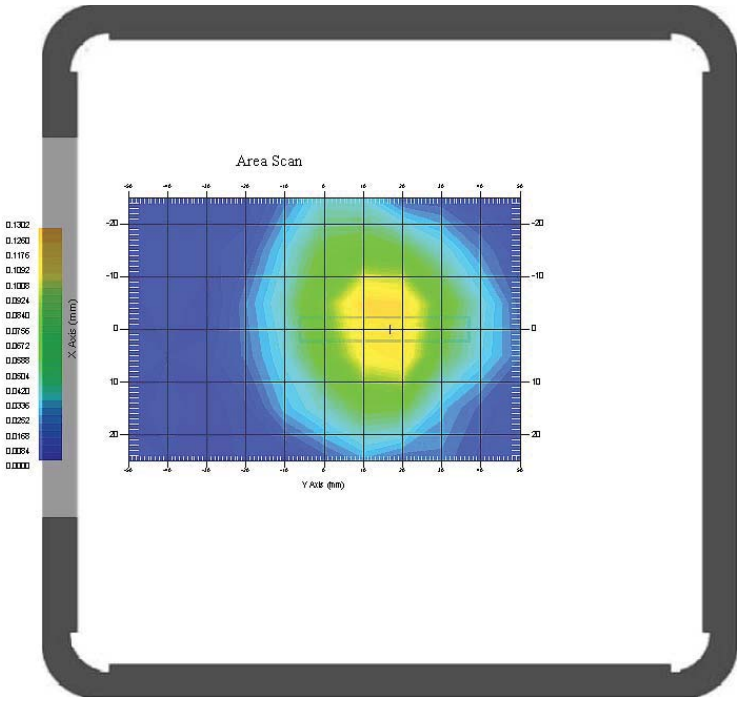
Measurement Data
Test mode : WCDMA850
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x8x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.074 W/kg
Power Drift-Finish : 0.075 W/kg
Power Drift (%) : 1.623

Tissue Data
Type : Body
Frequency : 826.4 MHz
Epsilon : 53.82 F/m
Sigma : 0.95 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 835
Duty Cycle Factor : 1
Conversion Factor : 5.9
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.119 W/kg
10 gram SAR value : 0.055 W/kg
Area Scan Peak SAR : 0.127 W/kg
Zoom Scan Peak SAR : 0.186 W/kg

Plot 46#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Body-Worn-Front (1852.4 MHz Low Channel)

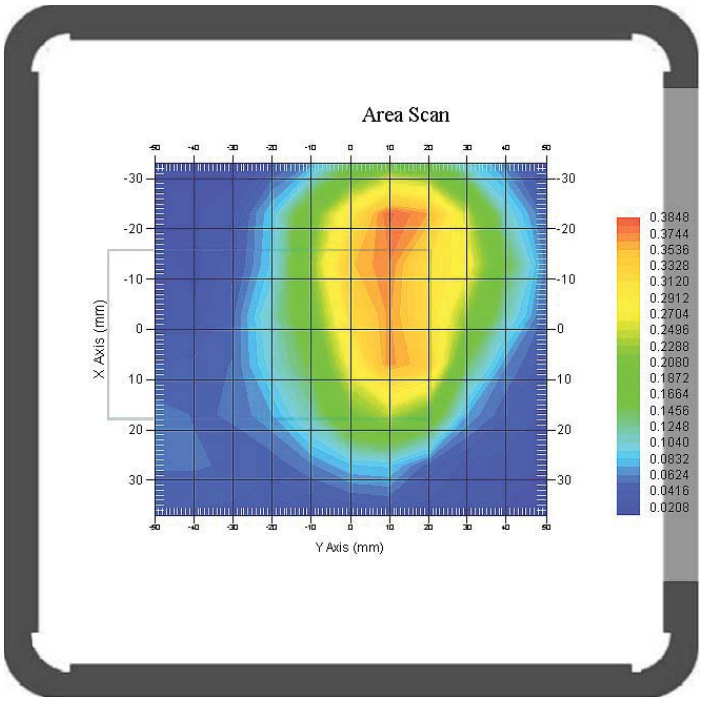
Measurement Data
Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.302 W/kg
Power Drift-Finish : 0.197 W/kg
Power Drift (%) : -1.773

Tissue Data
Type : Head
Frequency : 1852.4 MHz
Epsilon : 52.06 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.364 W/kg
10 gram SAR value : 0.212 W/kg
Area Scan Peak SAR : 0.382 W/kg
Zoom Scan Peak SAR : 0.591 W/kg

Plot 47#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Body-Worn-Back (1852.4 MHz Low Channel)

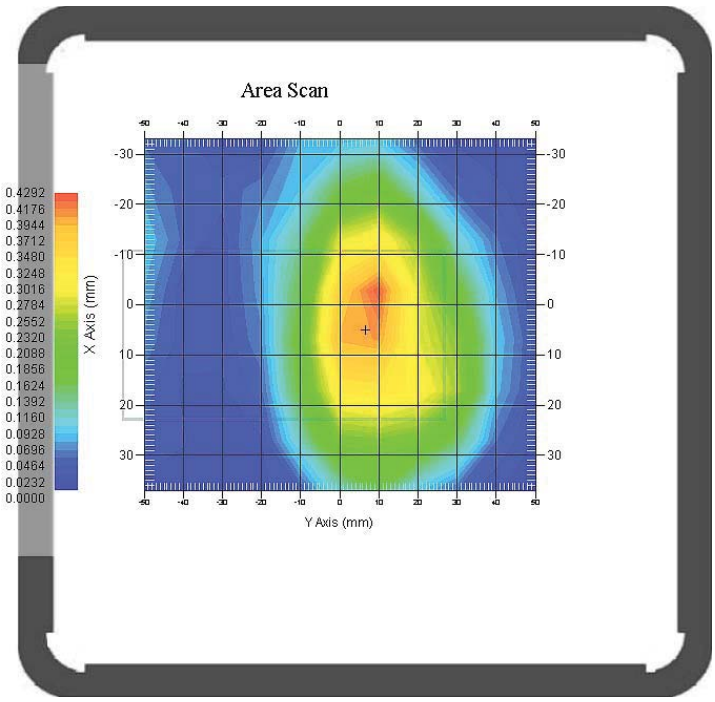
Measurement Data
Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.362 W/kg
Power Drift-Finish : 0.359 W/kg
Power Drift (%) : -0.813

Tissue Data
Type : Head
Frequency : 1852.4 MHz
Epsilon : 52.06 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 μV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.411 W/kg
10 gram SAR value : 0.253 W/kg
Area Scan Peak SAR : 0.429 W/kg
Zoom Scan Peak SAR : 0.700 W/kg

Plot 48#



Test Laboratory: Bay Area Compliance Lab Corp. (Shenzhen)

WCDMA1900; Body-Worn-Left (1852.4 MHz Low Channel)

Measurement Data
Test mode : WCDMA1900
Crest Factor : 1
Scan Type : Complete
Area Scan : 11x9x1: Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 7x7x7: Measurement x=5mm, y=5mm, z=5mm
Power Drift-Start : 0.075 W/kg
Power Drift-Finish : 0.075 W/kg
Power Drift (%) : -0.307

Tissue Data
Type : Head
Frequency : 1852.4 MHz
Epsilon : 52.06 F/m
Sigma : 1.49 S/m
Density : 1000.00 kg/cu. m

Probe Data
Serial No. : 500-00283
Frequency Band : 1900
Duty Cycle Factor : 1
Conversion Factor : 4.8
Probe Sensitivity : 1.20 1.20 1.20 µV/(V/m)2
Compression Point : 95.00 mV
Offset : 1.56 mm

1 gram SAR value : 0.109 W/kg
10 gram SAR value : 0.046 W/kg
Area Scan Peak SAR : 0.126 W/kg
Zoom Scan Peak SAR : 0.312 W/kg

Plot 49#